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IMPLEMENTING KENTUCKY'S COLLEGE READINESS AGENDA: AN ORGANIZATIONAL PERSPECTIVE OF POLICY IMPLEMENTATION

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DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the College of Education at the University of Kentucky

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ABSTRACT OF DISSERTATION

IMPLEMENTING KENTUCKY'S COLLEGE READINESS AGENDA: AN ORGANIZATIONAL PERSPECTIVE OF POLICY IMPLEMENTATION

Nearly two-thirds of undergraduate college students within the United States fail to graduate within six years because they are unprepared for postsecondary education. Thus, many states have embarked on policy reform movements centered on college and career readiness for all high school graduates. This study focused on Kentucky's efforts to implement four key initiatives—accelerated learning, secondary interventions, college and career readiness advising, and persistence to graduation—resulting from sweeping reform policies enacted in 2009 by the Kentucky General Assembly. The study considers policy implementation from an organizational perspective and explores the structural characteristics associated with effective policy implementation at the school level.

KEYWORDS: education policy, college and career readiness, implementation, organizational theory, organizational structure, education reform

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IMPLEMENTING KENTUCKY'S COLLEGE READINESS AGENDA: AN ORGANIZATIONAL PERSPECTIVE OF POLICY IMPLEMENTATION

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CHAPTER 1

INTRODUCTION

Nearly two-thirds of undergraduate college students within the United States fail to graduate within six years because they are unprepared for postsecondary education. Many states have thus embarked on policy reform movements centered on college readiness for all high school graduates. However, the creation of policy alone does not translate into practices that will benefit the end user (Calista, 1994; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Love, 2004). That is, policy reform without implementation is of little value. Policy outcomes are the result of system structures, relationships, and activities designed to operationalize the policy. It is not enough for policymakers and educational leaders to understand the core components of effective interventions. Rather, system reformers must have an equally robust understanding of the key components of effective policy implementation. Ineffective interventions coupled with effective implementation processes yield poor outcomes for students. Likewise, effective strategies coupled with ineffective implementation processes yield equally poor outcomes.

Research in education reform policy implementation should thus focus on both the core components of effective interventions and the core components of effective implementation. While education policy reform strategies attempt to focus on research-based interventions, effective research-based processes for implementing these interventions across a system are not widely understood (Fixsen et al., 2005). Research producing methodologies and measures of implementation processes and effectiveness can strengthen the existing implementation knowledgebase, as well as that of educational

reform and policy analysis. Most importantly, however, research into effective implementation strategies is necessary if the current systems of education expect to push on the metric of increased college readiness for all students. Thus, the purpose of this study is to explore the interactions between effective interventions and the organizational structural characteristics at the school level supporting their implementation.

College Readiness: Definitions and Policy Approaches

Both the need for, and the expectation to attend, postsecondary education is an idea understood and shared by many American students and parents. According to the American Diploma Project (2004), "almost 90 percent of 8th graders expect to participate in some form of postsecondary education and nearly two-thirds of parents consider college a necessity for their children" (p. 2). By the fall of 2010, postsecondary enrollment was higher than any previous year, reaching 21.0 million—an increase of 37% from enrollment in 2000. That number is expected to continue to rise by 15% from fall 2011 through fall 2020 (National Center for Education Statistics, 2012). These rising statistics represent a shift in expectations.

During the first half of the 20th century, poor academic performance and attrition from high school were viewed as natural phenomena within a system attempting to meet the needs of the masses and the nexus between the economy and education was the primary focus of reform (Tyack, 1974). During the 1960s, however, poor academic performance and attrition began to be related to social problems. Low achievement and dropouts became synonymous with delinquency, social dependency, and a general liability (Cervantes, 1965; Conant, 1959, 1961). During the last 30 years, proponents began to connect college completion, and therefore readiness, with civic participation and

global economic competitiveness (Bridgeland, DiIulio, & Streeter, 2007; Lane & Johnstone, 2012; Shaffer & Wright, 2010).

In response to the United States Secretary of Education Terrell Bell's concerns that America's education system was not producing a competitive workforce (Kosar, 2011), the 1983 United States National Commission on Excellence in Education produced a report, A Nation At Risk, warranting an urgent need for education reform. According to the report, at a time when demands for high-skill labor were increasing, American students ranked third or lower on 19 academic tests when compared to other industrialized nations. Further still was the lack of evidence of improvement. In fact, according to A Nation At Risk, achievement scores had been declining since as early as 1963. The commission warned that, while the nation had focused on improving access to education, America had failed to focus on improving the quality of education (Kosar, 2011; Vinovskis, 2009). Shortly thereafter, the 1988 William T. Grant Foundation Commission on Work, Family and Citizenship landmark reports—The Forgotten Half: Non-College Youth in America and The Forgotten Half: Pathway to Success for America's Youth and Young Families—suggested the then 20 million non-college bound population would be denied participation in our society based on their lack of academic preparedness. A decade later, the American Youth Policy Forum published a follow-up report noting an increase in participation in postsecondary education. However, this increase was accompanied by a concomitant increase in the success gap between those who participated in postsecondary education and those who did not. Further, the report argued that an increased concern for access to postsecondary training was insufficient (Halperin & Howe, 1998). In response, reformers called for increased rigor and

measurable standards across the K-12 spectrum as well as a minimum common core high school curriculum to include four courses in English, three in mathematics, three in science, and three in social studies (Vinovskis, 2009).

While A Nation at Risk sparked an increase in national interest in education quality and a national discussion around standardized tests (Vinovskis, 2009), it was not without criticism. Berliner and Biddle (1995) challenged the use of a single standardized test to measure the quality of the educational system of a nation. They note that the samples taken for each comparison country were considerably different and suggest that many of the commission's cited studies were flawed. Other critics concluded the report overstated the link between student achievement scores and the national economy, was limited in scope, and lacked the credible backing of adequate research (Goodlad, 2003; Peterson & Chubb, 2003). Regardless, the report inflamed a sense of crisis and sparked a reinvigorated national discussion around school reform, the standards movement, and accountability (Marzano, 2003; Scott, 2011).

In the subsequent 20 years of education reform, nearly one-third of all high school students were still not taking the recommended core curriculum suggested in the 1983 report (U.S. Department of Education, 2008) . While there have been some signs of improvement (e.g., a slight increase in GED and bachelor's degree attainment between 1990 and 1996) data on employment and wages for those without postsecondary training continue to be poor (Halperin & Howe, 1998). More recently, 2006 ACT data from over 800,000 high school students showed only one-fourth were prepared for college-level work in English, mathematics, social studies and science, and one-fourth were not prepared in any of those areas (ACT, 2007). Additionally, data from both the Programme

for International Student Assessment (Organisation for Economic Co-operation and Development, 2004) and the Trends in International Mathematics and Science Study (Gonzales et al., 2004) showed the United States was situated anywhere from ninth to twenty-second on international achievement rankings.

The lack of college readiness has substantial implications. The National Center for Education Statistics defines postsecondary remedial education as courses in reading, writing, mathematics, or study skills for college-level students lacking the skills necessary to perform at the level required by the institution (Parsad, Lewis, & Greene, 2003). Citing data from 2004, the 2008 Strong American Schools report, Diploma to Nowhere, indicated that 34% of all students at public colleges and universities enrolled in or required at least one remedial course (Strong American Schools, 2008). In addition, students required to take developmental courses in college were 50% less likely to complete a degree, and less than 25% of students needing remediation at community colleges were projected to earn a certificate or degree within 8 years (Bailey, 2009). Further, 58% of students who did not require remediation earned a baccalaureate degree, while only 17% of students enrolled in remedial reading and 25% of students enrolled in remedial mathematics courses completed degrees (U.S. Department of Education National Center for Education Statistics, 2004). Finally, remediation was estimated to cost states around $2.3 billion annually (Strong American Schools, 2008); thus, lowering those rates was estimated to generate an extra $3.7 billion annually from decreased spending and increased tax revenue from students who graduate with a bachelor's degree (Alliance for Excellent Education, 2006). Thus, policy-makers increased efforts to

intervene, invoking both social and economic arguments for reforms aimed at college readiness.

Defining College Readiness

To bolster the readiness reform agenda, college readiness had to be defined. The development of an operational definition for readiness was motivated by an increased interest in decreasing remediation, heightened public interest and demand, and several pressing national policy reform initiatives (Education Commission of the States, 2012). The Common Core State Standards Initiative has seen 44 states, Washington DC, and four territories, adopt a set of common standards for English/ Language Arts and Mathematics (Common Core State Standards Initiative, 2012). The Common Core State Standards Initiative suggests that these standards are essentially about readiness for college after high school graduation. That is, they are aligned with postsecondary expectations. In addition, states seeking waivers from the No Child Left Behind Act (NCLB) mandates (Education Commission of the States, 2012), were required to adopt college-readiness standards in English/Language Arts and Mathematics. States were additionally required to provide some measure of accountability on progress toward these standards (U.S. Department of Education, 2011). Further, the Obama administration allocated federal dollars to those states showing significant progress in four key areas, including preparation for success in college (Gibbs, 2011). The emphasis of this initiative is on incentivizing readiness, although NCLB remains the federal accountability model. A recent federal initiative, Race to the Top (RTT), sparked a flurry of activity among state policymakers. A major component of the grant required that state policy provide the necessary infrastructure to support the proposed strategies, including statutes

and regulatory language around readiness. Some states have since defined readiness in terms of what students are able to do in specific content areas, whereas other states defined readiness in terms of benchmark scores assessment (Education Commission of the States, 2012).

Although several organizations provide frameworks for defining readiness (e.g. American Youth Policy Forum, Partnership for 21st Century Skills, College Board, The National Association of State Directors of Career Technical Education Essential Skill Statements), there is no nationally-shared agreement of the definition of readiness to date. However, there is research proposing an operational definition that accounts for the components of these existing frameworks (Adelman, 2006; Roderick, Nagaoka, Coca, & Moeller, 2008). The Center for Policy Improvement developed a comprehensive definition of readiness (Conley, 2007, 2008, 2010). Conley proposes four integrated components be considered: content knowledge and basic skills, core academic skills, non-cognitive skills and norms of performance, and contextual skills and awareness (Conley, 2007; Farkas, 2003; Heckman & Rubinstein, 2001).

Content knowledge and basic skills as well as core academic skills include requisite patterns of intellectual behavior and basic content foundations necessary for college-level work and employability in today's economic environment. Conley (2007, 2008) describes these as (a) problem formation, research, interpretation and communication skills and (b) key foundational content knowledge from core subjects. These two readiness components are distinct, but only subtly. For example, the American Diploma Project (2004) suggests many of the English standards are not specific to the English content area. Academic writing, communication, and research

skills may also be applicable to other content areas, though they are included specifically in content standards. Thus, the distinction between content knowledge, basic skills and core academic skills may be discernible in definition, but not so in measurement. Regardless, the distinction is important. High school teachers often deliver content knowledge in ways other than by actively engaging students in research, problem solving, and analytic thinking, thereby neglecting the skills frequently cited by colleges and employers as lacking (American Diploma Project, 2004; Stone & Lewis, 2012; Zinser, 2003).

Non-cognitive skills and norms of performance such as self-management skills, time management, study skills, goal setting, self-awareness, and persistence are often difficult to measure, yet are necessary for both meeting the developmental demands of college-level work and participation as well as 21st century employment (Heckman & Rubinstein, 2001; Stone & Lewis, 2012; Tinto, 1987). A student's ability to manage his or her time, prioritize multiple projects, self-monitor in the face of competing demands and new freedoms may determine his or her success early on (Farkas, 2003; Tinto, 1987). However, a student's ability to navigate the complex world of financial aid, college admissions requirements, testing, and postsecondary expectations may determine their ability to get to college in the first place (Conley, 2008; Kirst, 2009; Kirst & Venezia, 2004). This is what Conley (2005) calls college knowledge or contextual skills and awareness. Opportunity to attend college may be associated with these skills in the same way content knowledge may be associated with a student's ability to succeed once accepted (Farkas, 2003).

State Policy Approaches

Defining college readiness is only part of the equation. Policy initiatives, such as NCLB waivers and RTT grants, require state systems to guarantee and utilize readiness accountability measures (Gibbs, 2011; U.S. Department of Education, 2011). Thus, defining readiness is necessary both in theory and practice. That is, readiness must be operationalized in measurable ways—a difficult task without a shared definition.

In the past, states and districts have focused on two primary components to determine readiness: coursework and assessment scores. Course grades are intended to reflect a student's level of mastery of content, but may also reflect a student's academic skills and non-cognitive skills if the standards upon which the course is based have these components embedded. Assessment scores are standardized measures of a student's basic content knowledge and core academic skills, which have been the fundamental indicators of readiness for some time now (Roderick, Nagaoka, & Coca, 2009). However, states and districts are now expanding curricula and encouraging greater rigor through open enrollment in advanced placement courses, increased graduation requirements, and college-aligned coursework (American Diploma Project, 2004; Roderick et al., 2009; Roderick et al., 2008). Additionally, states are linking accountability measures with achievement on national college-readiness assessments (Roderick et al., 2009). College readiness, therefore, is still operationalized as course grades and achievement on assessments as it has been in the past. The difference today is in the links between college readiness and accountability and the standards that serve as the foundation of the courses (Common Core State Standards Initiative, 2012; Conley, 2007, 2008).

To date, 44 states, Washington DC, and four territories have formally adopted the Common Core State Standards (Common Core State Standards Initiative, 2012). According to Achieve (2012), 21 states have also developed high school graduation requirements aligned to college-readiness standards (Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Indiana, Kentucky, Michigan, Minnesota, Mississippi, Nebraska, New Mexico, North Carolina, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Utah, Washington, and the District of Columbia). Though these requirements vary, the majority include higher levels of English, mathematics and science. Seven years previous, only three states (Arkansas, South Dakota and Texas) had such requirements (Conklin & Curran, 2005). Further, 15 states (Arkansas, Arizona, Florida, Hawaii, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island and Washington) are working to develop and implement college-ready algebra assessments that can be used as end-of-course requirements (Achieve, 2010).

States are also rewarding districts for college readiness. According to the National Governors' Association (2012), several states credit districts for student enrollment in advanced placement courses, postsecondary and high school concurrent enrollment participation, and scores on the International Baccalaureate exam. Florida, Indiana, Kentucky, and Oklahoma are among those that have adopted such policies, while Kentucky, Maryland, and North Carolina are among those implementing school environment surveys to foster improvement.

Education Policy Implementation: An Organizational Perspective

Broad agreement exists that policy implementation research is incredibly complex (Weaver-Hightower, 2008). Large-scale experimental studies yield questionable causal inferences given the difficulty in associating specific policy implementation activities with outcomes (Angrist, Imbens, & Rubin, 1993; Pan & Frank, 2003; Werner, 2004). Because factors impacting implementation can be delineated by a variety of system variables (e.g., level, structure, processes, actors, and environments), identifying and isolating the variables associated with policy implementation is an arduous task (Fixsen et al., 2005; Hill & Lynn, 2009; Matland, 1995). While policy implementation research seeks to address these variables, there is no broad agreement as to which unit of analysis is most valuable (Hill 2003). However, current implementation research tends toward theories that seek to analyze institutional and street-level bureaucracy variables impacting implementation. Because implementation takes place in complex human systems, and non-linear causal relationships in such systems require knowledge of their processes—the foundation of systems thinking (Wiener, 1961)—an organizational perspective of implementation may be beneficial. Considering implementation from such a perspective promotes a focus on the mutually causative relationships fundamental to solving complex problems associated with system processes (Senge, 1990).

Schools exist to accomplish an established set of objectives, and the way in which schools are structured can either promote or hinder success. These structures are formal in that they are stated processes and routines, and informal in that they are built on social interactions among members (Ott & Shafritz, 2000). Both formal and informal structures can either be intentional and guided by organizational objectives or unintentional and

agnostic to those objectives. The degree to which formal and informal structures intentionally function to promote stated goals is often the difference in successful implementation and unsuccessful implementation (Blau & Scott, 2003; Bolman & Deal, 2008; Ott & Shafritz, 2000). In an era of sweeping education reform policies, this structure-of-intention concept may help state policy-makers and schools understand and analyze the complex situations and the processes necessary to impact change.

Structure

An organization's structure is an attempt to "align internal workings with outside concerns" (Bolman & Deal, 2008, p. 97). Changes are inevitable and require adaptation, and thus, organizational structures evolve into different forms in order to achieve this alignment. The same is true of districts and schools (Collinson & Cook, 2007; Derr, 1971; Gulek, 2003; Sloane & Kelly, 2003). Structure is concerned with the social and environmental context of the organization, rather than simply the individuals within it. Component units of a district or school must function within a specific and intentional role as it relates to the effectiveness of the organization as a whole. Once these roles are clearly defined, component units should be grouped in an effort to achieve both specialization and division of labor. Coordination and control of these groups should be achieved either vertically or laterally, depending on the goals of the organization and the environment in which the organization operates (Bolman & Deal, 2008). This means, however, that structure can never truly be fixed (Collinson & Cook, 2007; Derr, 1971; Gulek, 2003; Mintzberg, 1979; Sloane & Kelly, 2003). That is, as goals are achieved, redefined, clarified, or altogether changed, so too must the structure (Collinson & Cook, 2007; Lawrence & Lorsch, 1967). Additionally, as the environment shifts and enacts

pressures upon the organization (i.e., policy shifts at the state and federal level), the structure must change to react to these forces (Choo, 2001).

Leadership

Organizational leaders play an important role in implementation (Fixsen et al., 2005; Hall & Hord, 1987, 2011). Regardless of their position relative to the center of implementation efforts, leaders influence the process through advocacy, agenda-setting, bargaining and negotiation, goal-setting and vision-casting, and ensuring alignment of resources (Bottoms & Schmidt-Davis, 2010; Collins & Porras, 1994; Sommers, 2009). In some ways, leaders may manage the implementation process, and it is important to note that, while leadership and management are two very different concepts, they may not necessarily be mutually exclusive. That is, one may be a manager and a leader, but cannot be defined as one by the evidence of the other. "People in authority positions… are not automatically leaders by virtue of their holding a position of authority" (Rost, 1991, p. 150). Therefore, in order for a person of position to be a leader, he or she must supplant the authoritarian managerial relationship with influence (Kouzes & Posner, 1993; Rost, 1991).

While a leader may be a manager by position, the nature of the managerial relationship must change in order to be a true leader. This is not a semantic exercise: "The two… words are not synonymous… Managers may be leaders, but if they are leaders they are involved in a relationship different from management" (Rost, 1991, p. 150). It is influence, coupled with the management of a district or school, that allows leaders to impact the implementation process. District and school leaders function as both manager and influencer—positions in the implementation process that may be

defined differently but may operate in tandem (Deal & Peterson, 1990). As managers, school leaders are focused on the short term, ensuring that resources are expended and progress is made within time frames of days, weeks and months. As influencers, school leaders help shape culture and focus on the long term, but must utilize management to do so (Deal & Peterson, 1990, 2009; Rost, 1991). School leaders focus on actions associated with conserving limited resources, acting efficiently, doing things right. They also focus on actions associated with effectiveness—end product oriented; however, effective may also be efficient.

Significance of Study

Researchers have, for some time, worked to understand the nexus between policy formation, strategic planning, and implementation (Berman, 1978; Berman & McLaughlin, 1977; Calista, 1994; Chrispeels, 1997; Cohen, Moffitt, & Goldin, 2007; Fixsen et al., 2005). Policy guides the development of strategies and outcomes that, in turn, provide the framework for activities used to carry out the policy (implementation). Analysis of the factors impacting implementation can be delineated by system level, system structure, system processes, system actors, and system environments. Because implementation is an ongoing process of decision-making by various stakeholders in situated contexts, the manner in which policy is implemented across a state system is not necessarily linear—that is, it changes over time and from one context to another (Matland, 1995; O'Toole, 1995, 2000). Therefore, while state policy standardizes and codifies the goals and the associated state-supported strategies guide local activities, the situated complexities of local implementation are not often understood. These complexities include issues related to organizational structures and the way in which

these structures support or hinder implementation efforts (Fitz, 1994; Ingram & Simons, 1995; J.-E. Lane, 2000). Given the complexities of the interactions between the policy, the contexts, and the structures involved, policy implementation must be considered in a practical way.

Analyzing implementation is critical to effective analysis of policy outcomes (Calista, 1994; C. Hill & Lynn, 2009; Love, 2004), specifically as state agencies seek to better understand how local context, barriers, and supports can inform policy, strategy, and state support service changes that might help to overcome reform obstacles. While outcome assessments are critical to tracking the effectiveness of strategies (C. Hill & Lynn, 2009), analysis of the implementation process provides a deeper understanding of barriers and facilitators of effective implementation that can then be disseminated across the larger system (Calista, 1994).

Methodology

The purpose of this study is to explore the interactions between implementation strategies, organizational structural characteristics, and performance outcomes. While the policies themselves do not mandate specific organizational structures be adopted, meeting the intended policy outcomes might require specific structures exist. Thus, two research questions guide this study:

1. How is Kentucky Senate Bill 1 implemented at the high school level?
2. How do structural characteristics within high schools support implementation Kentucky Senate Bill 1?

In order to examine the phenomena at a deep level, this study uses a comparative case study approach. Data were collected using a researcher-developed questionnaire, followed by semi-structured interviews and focus groups.

Sample and Site Selection

The research methodology deployed was a comparative case study using a most similar systems design for case selection (Seawnght, 2008). A selection of three Kentucky high schools, chosen from a population of 202, served as the cases for comparison. Criteria for selection included high, medium, and low performance and on Kentucky's college-readiness measures from the 2012-2013 school year. Study participants included principals (1 per school) and teachers (three purposefully selected by the principal and three randomly selected by the researcher) from each of the selected schools. Interviews and focus groups were used to collect data from each group. Qualitative data was then coded using a pre-defined framework and merged with quantitative district and school-level demographic and performance data for final analysis (Creswell, 2013; Denzin & Lincoln, 2011; Miles & Huberman, 1994; Ritchie & Spencer, 2002). Final analysis identifies associations between constructs and performance related to the measured intended policy outcomes.

Data Collection and Analysis

Data were collected using a researcher-developed questionnaire, individual principal interviews, and teacher focus groups. The questionnaire was administered to 202 head principal of the Kentucky's high schools and used to identify specific strategies implemented at the school level. These data were used in conjunction with urbanicity, percentage of students receiving free or reduced price lunch, and school size, to select

schools for participation in the study. The questionnaire was administered electronically via Qualtrics, and responses were uploaded onto the researcher's personal workstation. Interviews and focus groups were audio recorded and transcribed. Recordings, transcriptions, and notes were also uploaded onto my personal workstation. I then uploaded all data into QSR International's NVivo 9 software for coding and final analysis.

Potential Study Limitations

At the time the study was conducted, I was engaged in both policy development and implementation at the state level. As Kentucky has adopted sweeping reforms, my role was to ensure districts and schools implemented with fidelity. I was also developing a capacity assessment tool, a fundamental component of which is structural capacity for change, for districts and schools to use in their implementation efforts. While my influence over the resources, communications, and guidance used to support local implementation was grounded in my appreciative stance of the need for structural capacity, I was committed to assuring that my bias did not influence my interpretation of data by asking another reader to review raw data. A second reviewer discussed the coding framework and findings as a strategy to prevent researcher bias.

This study was conducted in Kentucky school districts. Because the study utilized qualitative data collected in a specific context, the results cannot be interpreted as typical structural characteristics of all organizations successfully implementing educational policy reforms. Although study findings are not generalizable, this research adds to the knowledge base about effective policy implementation.

Summary

This dissertation is arranged in the following order. Chapter 2 provides an overview of the literature describing policy implementation research and theories, the education policy context, and a rationale for the adoption of an organizational perspective of education policy implementation. Chapter 3 presents the procedures and methods used for data collection and data analysis. Chapter 4 presents the data analysis of the principal questionnaire and site selection. Chapter 5 presents the data analysis of the interviews and focus groups. Chapter 6 provides key findings and implications for state education agencies and schools.

CHAPTER 2

LITERATURE REVIEW

Implementation begins with the central governing authority or the policy-making agency and is the translation of that policy into action by other affected parties. Implementation is "the carrying out of the basic policy decision, usually incorporated in a statue but which can also take the form of important executive orders or court decisions" (Mazmanian & Sabatier, 1983, p. 20). Faithful implementation is the connection between policy-makers' intentions and policy outcomes (O'Toole, 1995), the process of putting authoritative directives into effect (Lester & Groggin, 1998). Hence, the essence of implementation is the activity of carrying out what is proposed—the process and structures connecting the policy infrastructure and supports with associated program actions at the local level. It is concerned with the structures and processes governing the practice of the policy, it is active, and it is associated with goals (Fitz, 1994).

This literature review begins by providing an overview three generations of policy implementation research, beginning with top-down theories followed by bottom and contingency theories. Next, the education policy context is explored, including an overview of education policy implementation research. Finally, the review provides a rationale for an organizational perspective on education policy implementation.

Policy Implementation Research: The First and Second Generation

Early iterations of policy implementation research can be categorized by two primary research paradigms: top-down research and bottom-up research. Early studies in policy implementation were top-down approaches (Fitz, 1994). In an effort to understand the failures of a series of federally funded programs in the 1960s, Pressman and

Wildavsky (1984) detailed the failed attempt by the Oakland, CA Economic Development Administration to address the unemployment issues in Oakland in 1965 through public funding. The program suffered multiple delays related to bureaucratic processes requiring approvals and agreements between and within a multitude of agencies. Central to the key findings was the need for clarity of process, intra- and extra-agency agreement and cooperation, and consideration of implementation as a part of policymaking. This study is characteristic of implementation research of the era (e.g., Mazmanian & Sabatier, 1983; Nakamura & Smallwood, 1980). Early studies focused attention on policies developed at the center of local systems and sought to understand the transition of policy into practice (Elmore, 1980; Van Meter & Van Horn, 1975). They viewed policy formation and implementation as two distinct phases: the policy development phase and the implementation phase. Models attempting to identify and map connections (Mazmanian & Sabatier, 1981) between defined stages of the policy formation process further advanced this idea (Fitz, 1994). The number of connections, or linkages, in the policy formation process began to be associated with successful or unsuccessful implementation.

By virtue of the distinction between policy formation and policy implementation, top-down researchers approached policy formation in a hierarchical and linear way (Fitz, 1994). The distinction between formulator and implementer is reflected in the policy community in which there is a separation between political appointees (i.e., those charged with policy formation) and public administrators (i.e., those charged with policy implementation) particularly seen at the federal level. Eventually, bottom-up researchers saw the focused attention on the hierarchy of policy formation as a stumbling block to

understanding implementation because top-down research imposed limits on the number of participants included in the policy process. These were established by existing sources of legitimate authority (e.g. legal structures and systems) (Fitz, 1994; Hjern, 1982). Thus, top-down research failed to recognize the role of those charged with the actual task of implementation in the policy process. Fitz (1994) noted:

> These, it is argued, are the institutions, organizations and actors considered to be most closely involved in the lives of the target groups and individuals and, it is they, through their interaction with consumers, who determine the extent to which policies are rendered effective. (p. 55)

Discretion in implementation results, therefore, in some degree of control over the policy. Hjern (1982) and his colleagues (Hull & Hjern, 1987) focused on the micro level of policy implementation, asserting that success is dependent on the abilities of principal implementers to adapt policy to local conditions (Matland, 1995). Bottom-up analysis relies on the perceptions and understandings of principal implementers and represents a shift in the unit of analysis and a change in methods of inquiry from the earlier policy implementation research (Fitz, 1994; Matland, 1995; McDermott, 2007; Sabatier, 1986).

However, this change in unit of analysis may overstate the ability of implementers to confuse policy intent (Sabatier, 1986). Further, the focus on current implementers neglects the contributions and impact of earlier policy iterations and previous policy actors. Finally, he posited it fails to analyze the "social, legal and economic factors which structure the perceptions, resources and participation of [actors]," (Sabatier, 1986, p. 35). He has since suggested that policy implementation should be considered in cycles of more than ten years taking into account advocacy coalitions as a primary unit of analysis (Sabatier, 1988). This approach attempts to tackle the complex changes and

system interactions that occur within parameters (e.g., legal structures, socioeconomic conditions) that remain relatively stable over long periods of time. However, Matland (1995) argued that "if policy implementation research is to retain a meaningful definition, it should be tied to a specific policy rather than to all actions in a policy field," (p. 152).

Comparing Methodologies

A comparison of the methodologies of top-down and bottom-up approaches is provided in order to highlight the key differences in the ways in which each approach research strategy, the goals of analysis, modeling the policy and implementation process, and the underlying model of democracy. Table 2.1 provides an overview comparison of these elements.

Table 2.1

Top-Down and Bottom-Up Theories Compared

Elements	**Top-Down Theories**	**Bottom-Up Theories**
Research strategy	From political decision to administrative execution	From individual bureaucracies to administrative networks
Goals of analysis	Predictive/policy recommendation	Descriptive/explanation
Model of the policy process	Stagist	Fusionist
Character of implementation process	Hierarchical guidance	Decentralized problem-solving
Underlying model of democracy	Elitist	Participatory

Note: Adapted from Pulzl and Treib (2007, p. 94)

Other research suggests that both top-down and bottom-up models are lacking. The former overemphasizes the responsibility of structure while the latter overemphasizes

implementer discretion (Ingram & Simons, 1995; Matland, 1995). Thus, a third generation of policy implementation research has come into focus.

Policy Implementation Research: Contingency Theories

Contingency theories attempt to reconcile the criticisms of both top-down and bottom-up approaches by considering policy implementation research in the context in which the policy is implemented. The conflict-ambiguity model of policy analysis is one such theory (Matland, 1995). This model evaluates the degree of policy conflict and policy ambiguity in order to better understand implementation efforts and results. Policy conflict is created by the gaps between the interests of interdependent authorities (Ritzer & Goodman, 2003). These gaps may be related to the policy goals, outcomes, or strategies associated with carrying out the policy (Matland, 1995). Because conflict is central to decision-making process, the degree of policy conflict will impact the way in which actors implement (or fail to implement). Ambiguity is related to the way in which actors understand, or have certainty in, policy goals and implementation processes. Matland suggests that ambiguity additionally impacts implementation:

> It influences the ability of superiors to monitor activities, the likelihood that the policy is uniformly understood across the many implementation sites, the probability that local contextual factors play a significant role, and the degree to which relevant actors vary sharply across implementation sites. (p. 159)

If policy goals and implementation processes are widely agreed upon and clearly understood across the system, the policy is considered low conflict/low ambiguity and is often implemented successfully. However, high conflict/high ambiguity policy implementation refers to implementation of policies, often those with substantial exposure, characterized as divisive and vague. These policies rarely move effectively

into full implementation across a system. Thus, the way in which actors understand a policy (including its intended outcomes, measures of success or failure, and the actions in which each agency is expected to engage to carry out the policy) and the degree to which this policy is accepted and valued by those actors together play a significant role in implementation processes and success.

Regime Theory

While Matland (1995) highlights the role of conflict, Stoker (1991) adapted urban regime theory (Stone, 1989, 1993) to highlight cooperation among principal actors in the implementation process. Stone continues to assert that regime theory accounts for the inadequacies of formal governmental structures to carry out the necessary activities for effective policy implementation. It is the informal arrangements between public and private agencies that function to accomplish policy formation and implementation (Shipps, 2008; Stone, 1989). They draw distinctions between external agencies or actors and bureaucratic hierarchies and suggest a clear difference between government and governance, structural and positional power, and formal leaders and potential leaders. They note that cross-sector collaboration outside of government is fundamental to policy implementation. Stoker (1991) suggests these partnerships form during implementation through necessity and are facilitated by incentives (Cline, 2000; Lester & Goggin, 1998). It is concerned with how context and situation impact the relationships of principal actors. Thus, the interactions and motives of individuals is the unit of analysis (Shipps, 2008). This theory is positioned as an emergent and dominant paradigm in policy research (Deleon & Naff, 2004).

Rational Choice

Other models focus on rational choice and communication (Deleon & Naff, 2004; Goggin, 1990; Lester & Goggin, 1998; O'Toole, 2000). Rational choice theories suggest that individual preferences and deductions about principal implementers' self-interest for utility maximization can explain and draw behavioral models (Green & Shapiro, 1994). That is, the decision-making capacity and ability of street-level bureaucracies to act in discretion is guided by some degree of self-interest. It is concerned with why policymakers pursue one policy over another and how policy proposals become laws. In the context of federalism, rational choice can illuminate the motives of influential system actors at each level in the bureaucratic hierarchy as well as the interests groups involved in formulating and operationalizing policy (O'Toole, 2000). Implementation, therefore, may be viewed as the result of the degree to which consensus was built by participants and affected parties during the policy formation process. Thus, the driver of effective implementation is mutually beneficial activities based on shared understandings and expectations facilitated through effective communication (Goggin, 1990).

The Education Policy Context

Policy implementation studies in education have their roots in the political science and public administration literature, both of which are influenced by the nature of federalism (Fitz, 1994). Thus, the policy discourse around public education is fundamentally rooted in the history of compulsory education in the United States. It is appropriate to set the context, therefore, by briefly examining this history. Judicial precedence has defined the authority of states to enact and enforce education laws as a

valid use of the sovereign powers retained by states as guaranteed in the 10th Amendment of the U.S. Constitution (Sperry & Gee, 1998).

By 1888, public sentiment was moving policy discussions toward state adoption of compulsory education laws as noted by the U.S. Commissioner of Education's annual report to the Secretary of the Interior: "Public sentiment is slowly crystallizing in the direction of requiring by law all parents to provide a minimum of school instruction for their children" (U.S. Bureau of Education, 1891). Just nine years prior to this report, Massachusetts enacted a statute requiring parents to send their children to school for a minimum of twelve weeks per year (Perrin, 1896). While there was little effort to enforce this law, the New England statute set a precedent that other states would follow. The result was a gradual shift from compulsory attendance for children living in the absence of appropriate parental supervision, to compulsory attendance for all children. By the early 1900s, compulsory education had effectively become institutionalized. That is, the loosely structured and disconnected education process had developed into a markedly more centralized, formal, and explicit system of education (Everhart, 1977).

The Institution of Public Education

By 1918, all states in the union had passed compulsory education laws, most of which included

> longer schooling periods each year, a required school census, the employment of attendance officers, and the elimination of various common exemptions such as equivalent instruction, mental or physical deficiencies, and poverty from the compulsory attendance status. (Katz, 1976, p. 22)

The institutionalization of education arose, in part, from the rapid urbanization of society resulting from industrialization and exponential population increases. Society began to

consider schools as an institution of social order as massive immigration accompanied by crime, vagrancy, and fear began to sweep urban areas (Katz, 1976). What once was primarily the responsibility of the parents had become a moral imperative of the state. "Schools . . . [assumed] a greater burden in the enculturation of the young as the modal form of cultural transmission" (Everhart, 1977, p. 502).

The increased reliance on schools as an agency of reform and progress facilitated the economic expansion of the United States during this time; in turn, increasing the reliance on schools (Katz, 1976). Between 1910 and 1940 the United States experienced a 31% increase in the number of high school diplomas obtained as the country expanded compulsory education beyond age fourteen (C. Goldin & Katz, 1999). As the number of graduates increased, the high school diploma became the gateway to employment (Dorn, 1996). Thus, the value of the diploma increased and young people found incentive to attend and graduate. Concomitantly, the expectation of high schools began to change. In his study of comprehensive high schools during the late 1950s, Conant stated, "with few exceptions…the public high school is expected to provide education for all the youth living in a town, city, or district" (1959, p. 7). American schooling, fueled by public funding and funneled through a federalist system, provided far less exclusive access to the academic and technical skills necessary for such industrial and economic growth than did that of America's European counterpart (Goldin & Katz, 2008). Thus, the economic competitiveness of the nation was tied to education. In summary, the combination of spatial movements of populations from rural to urban areas and rapid industrialization and economic growth changed the social dynamic between individuals and the state.

Economics and the Rational State Goal

Education has become an institution over which the state can exert some control. As such, states support systems of schooling by creating statutory infrastructures tied to both economic viability and enculturation (Goldin & Katz, 1999; Katz, 1976). Friedman's (2005) examination of the factors and influences of globalization outlines the forces shaping government policies in the 21st century. He offers ten primary factors influencing this phenomenon. The openness resulting from the end of the Cold War and the surfeit of personal digital devices has converged to provide unprecedented access to the global community. The internet and accompanying work flow software and uploading provide the foundation, while outsourcing, insourcing, supply-chaining, and off shoring increase cost-effectiveness and efficiency for even the smallest enterprises.

Additionally, the great influx of information made readily available to all via the Internet and global networking is an exponential capacity builder. However, these advances alone are not sufficient to create this new level playing field. Gatekeepers and policy-makers had to acknowledge the potential of such technological advances and work to manufacture a suitable environment that would foster expansion. China, Russia, India, and Latin America all had to open their borders to allow for transference. The motivation behind such policy shifts stemmed from external pressures from the West as well as internal desires to participate actively on their own terms and for their own benefit in the global economy. As a result, geography and sheer size no longer determine a country's relative influence in the world; rather, it is individual talent and the ability to tap into the technological infrastructure of the world that dictate one's place in the global economy (Bridgeland et al., 2007). As smaller and smaller enterprises tap into this infrastructure it

creates an expanding market in which the larger, historically dominant, enterprises must now compete. The resulting focus on national economics and power has ushered in a new wave of education policy and reform (Bridgeland et al., 2007; Laird, DeBell, Kienzl, & Chapman, 2007).

Implementation and Tinkering Toward Quality

During the first half of the 20th century, poor academic performance was viewed as a natural phenomenon within a system attempting to meet the needs of the masses (Tyack, 1974; Tyack & Cuban, 1995). During the 1960s, however, the issue became related to social problems. As graduation from comprehensive high school was accepted as the social norm, failure became synonymous with delinquency, social dependency, and a general liability. As Conant (1965) stated,

> a youth who has dropped out of school and never has had a full-time job is not likely to become a constructive citizen of his community . . . as a frustrated individual he is likely to be antisocial and rebellious, and may well become a juvenile delinquent. (p. 35)

Reiterating Conant's point, sociologist Lucius Cervantes (1965) posited that most dropout become "gangsters, hoodlums, drug addicted, government-dependent-prone, irresponsible and illegitimate parents of tomorrow" (p.197).

More recently the two arguments have been combined. The primary arguments reside in the fundamental legal basis for compulsory education in general. Specifically, proponents cite the state's need to increase participation in higher education and prepare the nation to compete in a global economy (Bridgeland, DiIulio, & Morison, 2006; Bridgeland et al., 2007; Goodlad, 1997) while decreasing issues such as juvenile crime and teen pregnancy as rational state goals (Education Commission of the States, 2010;

Tyack & Cuban, 1995). This shift led the policy conversation away from mere attendance to more fully include quality (i.e., achievement).

The Elementary and Secondary Education Act was passed in 1965 as a part of the Johnson administration's *War on Poverty* (Cooper, Cibulka, & Fusarelli, 2008). The Act emphasizes equal access to education and establishes high standards and accountability and authorizes federally funded education programs that are administered by the states. Later, the Goals 2000 Educate America Act (National Association of State Directors of Special Education, 1994) set the bar high, aiming to reduce the dropout rate and increase achievement nationally. Then, in 2001, the Bush administration amended the Elementary and Secondary Education Act as the No Child Left Behind Act. Likewise, this act attempted to put into place accountability measures designed to address issues of attrition and academic performance, however not seriously enforced (Cooper et al., 2008). Still later, in 2008, the United States Department of Education reported that attrition and achievement remained to be significant challenges for the nation (U.S. Deptartment of Education, 2008).

More recently, the Obama administration has freed federal dollars to those states showing significant progress in these areas (Gibbs, 2011). The emphasis of this reform strategy is on incentivizing graduation and achievement rather than penalizing attrition and failure (though NCLB remains the federal accountability model). The RTT initiative sparked a flurry of activity among state policy makers. A major component of the grant requires that state policy provide the necessary infrastructure to support the proposed strategies, including statutes and regulatory language around school attendance, accountability, and performance. Thus, evaluation of policy has significant funding

results for states, and much of the large-scale education implementation research of the last five years has found little or no positive impact on student achievement (Agodini et al., 2009; Dynarski et al., 2007; Gamse, Jacob, Horst, Boulay, & Unlu, 2008; James-Burdumy, Dynarski, & Deke, 2007). As a result, researchers are calling into question issues of program implementation (Mahoney & Zigler, 2006).

Researching Education Policy Implementation: Adopting a Framework

While researchers can model the implementation of policies and programs in large-scale experimental studies (Krull & MacKinnon, 1999; MacKinnon & Dwyer, 1993; O'Donnell, 2008), some researchers note the difficulty in associating specific policy implementation activities with specific policy outcomes, suggesting causal inferences are questionable (Angrist, Imbens, & Rubin, 1993; Pan & Frank, 2003; Werner, 2004). Thus, while policy implementation research has become more diverse, meaningful operational definitions and methodologies for researching implementation and defining success have yet to be realized (Fixsen et al., 2005). What is understood is the incredibly complex nature of policy implementation research (Weaver-Hightower, 2008). Because policies are neither formed nor exist in vacuums, they are subject to the complex interactions of social systems. Policy guides the development of strategies and outcomes that, in turn, provide the framework for activities used to carry out the policy (i.e., implementation) (Hill & Lynn, 2009; O'Toole, 1995, 2000). Analysis of the factors impacting implementation can be delineated by system level, system structure, system processes, system actors, and system environments (Fixsen et al., 2005; Hill & Lynn, 2009; Matland, 1995; Sabatier, 1988, 1999; Stoker, 1991). Identifying and isolating the variables associated with policy implementation is an arduous task. Some 300 variables

have been identified as impacting both policy outputs and outcomes (Hill, 2003; Hill & Hupe, 2002). Generally, these variables fall into three categories: macro-environmental variables, institutional or organizational variables, and street-level bureaucracy variables (M. J. Hill & Hupe, 2002). Macro-environmental variables include those associated with the relationship between the government and the society at large. Institutional or organizational variables focus on vertical and horizontal intra-agency associations. Street-level bureaucracy variables include the activities and perceptions of principal implementers. While policy implementation research seeks to address these variables, there is no broad agreement as to which unit of analysis is most valuable (Hill, 2003).

Three distinct generations of education policy implementation research have been identified: (a) research beginning in the early 1970s, (b) research from the late 1970s, and (c) research beginning around 1990 (Fowler, 2013). Much of the first and second-generation implementation research focused on large-scale, federally funded Title I programs and tended toward a top-down model of policy implementation. The third generation research, while adding to the findings of the first and second, tended toward the contingency theories. There is a progression to the lessons learned in each generation of research. Research indicated that policy implementation is difficult, complex, often strains local agencies, and results in role confusion. These issues became the policy implementation questions researcher attempted to address in later eras. The concepts of mutual adaptation and iterative system learning also reflect the frameworks of policy implementation researchers not solely focused on education policy. That is, research in policy implementation in education moved steadily toward contingency theories as well.

An Organizational Perspective of Education Policy Implementation

As implementation research tends toward contingency theories, and contingency theories tend to analyze institutional and street-level bureaucracy variables, an organizational perspective of policy implementation may be beneficial. At its core, implementation takes place in human systems, and the complexity of non-linear causal relationships in human systems requires knowledge of their regulation, control and communication processes—the foundation of systems thinking (Wiener, 1961). Whereas linear thinking promotes analysis of one-way causal relationships, systems thinking focuses on circular or mutually causative relationships and is fundamental to solving problems associated with complex processes and systems (Senge, 1990). Because the basic component unit of human systems is the individual (Argyris & Schön, 1974), the way in which individuals think about systems determines the processes used to transform them (Collinson & Cook, 2007).

Formalized human systems, or organizations, are institutions that exist to accomplish some established set of objectives (Bolman & Deal, 2008). Organizations are both formal—due to intent of structure and objective—and informal—due to social interconnections among members (Ott & Shafritz, 2000). They are defined by the degree to which those social interconnections are guided and intentional (Blau & Scott, 2003). Formal systems provide the structure of intention, existing to capitalize on these social connections; they are not merely systems of component units standing in relation to one another (the social interconnection), but instead, human systems of component units standing in specific and intentional relation to one another for the purpose of meeting an objective (or a set of objectives). For organizations such as schools and districts, this

structure-of-intention conception aids in understanding and analyzing complex situations and the processes used by larger systems and subsystems to impact change.

Summary

Policy implementation is a complex, iterative process that is difficult to define and measure (Fixsen et al., 2005; Weaver-Hightower, 2008). Both top-down and bottom-up approaches provide frameworks for sense-making, yet neither fully account for the complexities of local implementation nor the way in which system feedback impacts the policy formation process. Contingency theories account for the complexities of system interactions and the iterative nature of policy formation and implementation. These frameworks provide researchers the tools to begin to parse out some of the variables and examine their associations with each other. Because adopting a framework often defines the unit of analysis for research, it should be determined by the question at hand. For states implementing reform policies impacting districts and schools, it is critical that policy makers understand how implementation happens in order to provide the appropriate supports and build capacity (Calista, 1994; C. Hill & Lynn, 2009; Love, 2004). The question at hand, therefore, is how does local implementation happen? The unit of analysis is the school or district.

Distinguishing between policy approaches to college readiness and implementation of college-readiness programming at the district level is a difficult task. While there are several recent studies examining various local college-readiness strategies (Conley, McGaughy, Kirtner, van der Valk, & Martinez-Wenzl, 2010; Taylor, Linick, Reese, Baber, & Bragg, 2012; Tierney, Bailey, Constantine, Finkelstein, & Hurd, 2009), the local policy infrastructures designed to facilitate these strategies is not well

researched on a broad scale. Often, these program initiatives are driven by state level policy initiatives tied to accountability (American Diploma Project, 2004; Conley, 2007, 2008; Roderick et al., 2009; Roderick et al., 2008). Thus, research on district level college-readiness policy is more a function of implementation research. Further, these studies may or may not detail district policy infrastructures meant to support program implementation. However, as policy-makers, legislators, educational leaders, and researchers seek to evaluate the effectiveness of federal and state-level college-readiness policies, research on local implementation will need to include the local policy infrastructures meant to support such efforts if the nexus between policy formation, implementation, and outcomes are to be understood in meaningful ways (Fixsen et al., 2005; O'Toole, 2000).

While no framework will fully illuminate the black box of policy implementation, an organizational perspective on policy implementation based on contingent theories of policy implementation and formation can aid in the process. As researchers add to the work of one another, a body of knowledge will emerge around local implementation processes and the impact of education policy formation on these processes, and vice versa (Fixsen et al., 2005). This body of knowledge informed the design of the study described in Chapter 3. Chapter 4 presents the data analysis of the principal questionnaire and site selection. Chapter 5 presents the data analysis of the interviews and focus groups. Chapter 6 provides key findings and implications for state education agencies and schools.

CHAPTER 3

METHODOLOGY

Using the sweeping reform policies within Kentucky Senate Bill 1 enacted in 2009 by Kentucky's General Assembly as the context of the study, this research investigated the interactions between implementation strategies, organizational structural characteristics, and performance outcomes. Sections 2 and 13 of the policy require (a) the state adoption of revised K-12 content standards aligned with postsecondary expectations; (b) the development of a unified plan to reduce college remediation, including interventions and acceleration opportunities for students; and (c) the development of a new system of assessments, including end of course, ACT Plan and ACT, and program reviews. The goal of the policy is to increase the number of students who are college ready by 50% between the years 2010 and 2014. While the policy is not a direct charge for districts and schools, it does require that state agencies promulgate regulations to operationalize the policy. Thus, districts and schools often recognize Kentucky Senate Bill 1 to be these regulations. While the intended policy outcomes are clear, both the implementation strategies and organizational structures are a function of local control.

Research Questions

The study seeks to address two overarching research questions:

1. How is Kentucky Senate Bill 1 implemented at the high school level?
2. How do structural characteristics within high schools support implementation Kentucky Senate Bill 1?

The first research question refers to the specific strategies and interventions schools use to ensure students meet the college-ready metrics defined by the state accountability system. The second research question seeks to ascertain teacher and principal perceptions related to organizational goal clarity and agreement, clarity and agreement related to roles and responsibilities, and structural flexibility and adaptations.

Summary of Methodology

The research methodology deployed was a comparative case study using a most similar systems design for case selection (Seawnght, 2008). A selection of three Kentucky high schools served as the cases for comparison. Criteria for selection in the study included high, medium, and low performance and on Kentucky's college-readiness measures from the 2012-2013 school year. Study participants included one principal per school, three teachers purposefully selected by the principal, and three teachers randomly selected by the researcher from each of the selected schools. Interviews and focus groups were used to collect data from each group. Qualitative data were then coded using a pre-defined framework and merged with quantitative district and school level demographic and performance data for final analysis (Creswell, 2013; Denzin & Lincoln, 2011; Miles & Huberman, 1994; Ritchie & Spencer, 2002). Final analysis identified associations between constructs and performance related to the intended policy outcomes.

What follows is a description and rationale for the research design, the context and setting of the research study, a description of the research study sample and data sources, the research study procedures and timelines, data analysis methodology, and an explanation of the role of the researcher.

Study Design

Given the incredibly complex nature of policy implementation research (Matland, 1995; Weaver-Hightower, 2008), a comparative case-study approach was an appropriate research methodology because it provided me opportunities to make sense of the various social interactions within and across human systems (Babbie, 2007; Denzin & Lincoln, 2011). The process was iterative—I made observations, developed initial and general conclusions informing further observations, thereby informing further iterations of more specific conclusions (Babbie, 2007). The result is a rich narrative that provides insight into the principle implementers' attitudes, behaviors, beliefs, decision-making processes, assumptions, and individual and group sense-making (Babbie, 2007; Denzin & Lincoln, 2011). Assuming an organizational perspective of policy implementation, principle implementers include street-level bureaucracy agents and their perceptions of the environment, processes, activities, structures, and interactions related to implementation (Hill & Hupe, 2002). For schools implementing college-readiness policies, those individuals included principals and teachers.

This three-phase study used a qualitative research design. Table 3.1 details the timeline of the study.

Table 3.1

Three-Phase Study Timeline

Phase 1: July 2014 – August 2014	**Phase 2: August 2014 – September 2014**	**Phase 3: September 2014— December 2015**
Administration of Principal Questionnaire and Site Selection	Individual and Focus-Group Interviews	Data analysis

As Table 3.1 shows, the study consisted of data collection through the use of a researcher-developed questionnaire, followed by semi-structured interviews with each principal and semi-structured focus-group interviews of purposefully and randomly selected teachers.

Phase 1 of data collection, administration of the principal questionnaire (see Appendix E), served two purposes: (a) to identify specific strategies and interventions schools adopted, or capitalized upon, to ensure students meet the college-ready metrics defined by the state accountability system; and (b) to identify, based on the similarities of the strategies and interventions selected by the principal, the three specific cases for exploration.

Phase 2 of the study explored teacher and principal perceptions related to organizational goal clarity and agreement, clarity and agreement related to roles and responsibilities, and structural flexibility and adaptations. Principals from the selected high schools were asked to identify three teachers with the greatest potential to offer the deep insight into the implementation of the school's college-readiness strategies for participation in focus groups during this phase. I then randomly selected three additional teachers from each high school to join the purposefully selected teachers in the focus groups. Principals participated in semi-structured interviews while teachers participated in focus groups. During this phase of data collection, participants shared their opinions and experiences specific to the organizational structural characteristics supporting the implementation of strategies and interventions identified by the principal during Phase 1.

Phase 3 of the study included final data analysis. All interview and focus group data were professionally transcribed and upload into QSP International's NVivo 9

software to assist in the analysis. I used an organizational framework to complete the final coding process. This framework reflected the organizational structure constructs evident in the literature and served to situate the codes within a context. The coding process included open-coding, then axial coding, followed by selective coding.

Study Setting and Context

Kentucky's K-12 school system was comprised of 173 school districts and a total of 1,233 public schools, including 229 high schools for which college-readiness data were available, at the time of this study. Schools within the state's two largest districts were excluded because sheer size of the districts situates these schools in a unique environment. Schools receiving technical support from the state agency as a result of low performance were also excluded. Public education policy is directed by state statutes and regulations and operationalized by local systems covered by some degree of local control. That is, local boards of education and school-based decision making councils at each school play a substantial role in establishing curriculum, course requirements, and additional graduation requirements, as well as resource allocation and personnel decisions. Thus, Kentucky's 173 districts function with some degree of autonomy.

In March 2009, Governor Steve Beshear signed Kentucky Senate Bill 1 into law. This reform legislation ushered in sweeping changes to the Commonwealth's entire P-16 education continuum. Sections 2 and 13 of the bill called for (a) the state adoption of revised K-12 content standards aligned with postsecondary expectations, (b) the development of a new system of assessments, and (c) the Kentucky Department of Education and the Kentucky Council on Postsecondary Education to develop and

implement a unified plan to reduce college remediation. The resulting suite of regulations became the way in which districts and schools recognized the policy.

At the K-12 level, district and school improvement plans—both required by regulation—were tied to the local implementation of strategies addressing one or all of the aforementioned focus areas. Further, each district was provided baseline data on key metrics directly related to the new accountability model—student achievement, gap closure, student growth, college and career readiness, and graduation rates. From these baseline data, the state provided districts with improvement goals, establishing district trajectories to increase college-readiness rates by 50% between 2010 and 2015. Further still, in February 2011, the state secured signatures from all districts declaring their intent to focus on this 50% increase in college-readiness rates. This pledge, called the Commonwealth Commitment, was initiated by the Governor's Office and shared broadly with the public. Thus, while districts function under the umbrella of local control, the state sought to link public will with policy levers to ensure policy implementation yielded the intended outcomes of the reform effort. To date, the state has surpassed the trajectories for improving college readiness in the aggregate. However, not all districts have met (or are meeting) their identified goals.

Sample and Data Sources

Three Kentucky high schools were selected for comparison from a population of 202 public high schools created from omitting both the state's two largest districts and schools receiving technical support from the state education agency. Selected schools were chosen using a most similar systems design method (Seawnght J, 2008). They were similar with respect to urbanicity, percentage of students receiving free or reduced price

lunch, school size in student population, and principal responses to the researcher-developed questionnaire administered in Phase 1 of the study. Schools differed, however, in their performance outcomes on Kentucky's college-readiness measures as defined by the Kentucky School Accountability Model. For students to be considered college ready, they must meet the Kentucky Council on Postsecondary Education System wide Benchmarks for reading (20), English (18), and mathematics (19) on any administration of the ACT. Students who fail to meet benchmarks on the ACT but who pass Kentucky's College Placement Tests (Compass or KYOTE) are likewise considered college ready. However, regulation requires these students receive some type of intervention prior to administration of the alternate exam. By selecting schools of similar urbanicity, size, and student socio-economic characteristics, I hoped to control for the influence of those differences (Seawnght J, 2008).

Schools were first sorted by high, medium, and low performance on Kentucky's college-readiness measures from 2012 and 2013—the last year for which these data were available at the time the study was conducted. High performance was defined as those schools in the top quartile of performance on college-readiness measures, while low performance was defined as those schools in the bottom quartile of performance. Once schools were sorted by performance, I used the prioritized criteria described in Table 3.2 for selection of schools across performance stratum for comparison. These criteria served to control for differences across schools, ensuring selected schools were those that were most similar.

Table 3.2

Prioritized Criteria for Site Selection

Priority	Criteria	Description
1	Principal questionnaire response	Analysis of the Principal questionnaire considered similarities in strategies and interventions between schools
2	Urbanicity	Urbanicity was determined by using each district's National Center for Education Statistics 2005-2006 assigned Urban-centric local code (ULOCALE). These codes are based on the location of school buildings in relation to size of, and distance from, urbanized areas.
3	Size	School size was determined using the school enrollment data as publicly reported on the 2012-2013 Learning Environment Students/Teachers data set accessible within the Kentucky Open House data repository.
4	Percentage of students receiving free or reduced price lunch	Free or reduced price lunch percentage was determined using the school enrollment data as publicly reported on the 2012-2013 Learning Environment Students/Teachers data set accessible within the Kentucky Open House data repository.

After consideration of the prioritized criteria for site selection, I selected, by convenience relative to my home, three schools most similar in strategies and interventions identified by the principal, urbanicity, size, and percentage of students receiving free or reduced price lunch for comparison. One school within each performance outcome strata was selected.

Study Participants

Study participants included those members most closely associated with the policy implementation processes at the school level—high school teachers and principals (Danielson, 2007; Fullan, 2009; Hill, 2003; Hill & Hupe, 2002). Only the head principal

was selected to participate. Principals serve in a formal position of authority and assume the responsibility for enacting strategies and structures to ensure school goals are met by performing administrative and managerial duties and influencing change (Danielson, 2007; Deal & Peterson, 1990). As expectations and demands increase to improve schools, it is essential for principals to establish an environment that supports collaboration, communication, and clearly defined roles and responsibilities that support the strategies and school goals (Bottoms & Schmidt-Davis, 2010; Fullan, 2009; Leithwood & Mascall, 2008).

As discussed in the previous sections, the principal used the questionnaire to identify three teachers who have the greatest potential to offer deep insight into the implementation of the school's college-readiness strategies for participation in focus-group interviews. The purposeful selection of these teachers ensured the data from the focus-group interviews was germane to the research questions at hand. Additionally, I randomly selected three teachers from each high school's teacher roster to participate in the focus groups. This helped to cross check the perceptions of those identified as most closely associated with the strategies with other members of the organization. Further, this sample method provided insight into the pervasiveness of the structural change. In total, 3 principals and 18 teachers participated in the study.

Data Sources and Collection

The study used extant data as well as data from interviews and focus groups. The following describes both data sources used in the study.

College Readiness

Components of each school's required state-accountability reporting data were collected from the Kentucky's Open House web site. The site contains a variety of data elements open to the public as a part of the state's goal to increase performance transparency. The accountability model requires that schools report performance on a variety of metrics, including college readiness. Readiness scores for each school are the percent of students who graduate college ready. For high schools, college readiness is determined by student performance on ACT or successful completion of college placement exams – specifically, the Computer Adaptive Placement Assessment and Support System (COMPASS) or the Kentucky Online Testing Program (KYOTE). These two assessments are given to students in grade 12 who failed to meet the Kentucky Council on Postsecondary Education's (CPE) benchmarks on the ACT.

School Characteristics

In addition to college-readiness data, I collected data related school characteristics. These characteristics included urbanicty, size in student population, and the percentage of students receiving free or reduced price lunch. Urbanicity data were obtained from the publicly available National Center for Education Statistics web site. School size and percentage of students receiving free or reduced price lunch were obtained from Kentucky's publicly available Open House web site.

Principal Questionnaire

A researcher-developed open-ended questionnaire (see Appendix E) was used to collect data from principals related to specific strategies and interventions the school used

to ensure students meet the college-ready metrics defined by the state accountability system.

Interviews and Focus Groups

Semi-structured interviews and focus groups provided additional data for analysis. The interview and focus-group protocols identified participant perceptions related to key constructs associated with organizational structure. What follows is an overview of the key constructs within the protocols and the framework that was used to analyze participant responses.

Organizational goals. Goals are concerned with the long-term direction of an organization and are both stated and real. Stated goals are those that the organization espouses to pursue; these are overt and understood and may be easily measurable or diffuse. They determine strategic planning, and strategic planning determines the systemic allocation of resources. Thus, the structure of the district or school, through intention or lack thereof, can either help or hinder the acquisition of goals by allowing for the efficient or inefficient use of these allocated resources (Bolman & Deal, 2008). However, stated goals are not the only goals affecting organizations. Real goals also exist, though perhaps not on paper, and affect the structure of districts and schools as much as stated goals. These may be proscribed, banal, pursued but inconsistent, or even invented ideals (Bolman & Deal, 2008; Collinson & Cook, 2007). Because both types of goals—stated and real—affect structure, analysis requires delving beyond a formal organizational purpose statement.

Structural flexibility and adaptations. At its core, structures ensure or prohibit district and school effectiveness as it relates to the integration of people and technology

for the purpose of accomplishing organizational goals. Thus, district and school goals must be clear and understood, the relationship between district and school structure and the changing environment must be managed, and structure must be adapted to minimize conflict and confusion leading to inefficiency and poor performance (Keedy & McDonald, 2007). Analysis of structure suggests that organizational problems arise when leaders neglect this charge. Carefully integrating people, processes, and technology with intention is foundational to this approach. So too is the concept of division of labor and subsequent appropriate systems of supervision and accountability. The intentional application of these foundations within an understanding of the context and environment is the primary means by which managers minimize people problems and increase efficiency (Bolman & Deal, 2008).

Communication. Because districts and schools often function as both loosely-coupled and bureaucratic structures or layered hierarchies (Owens, 1981; Weick, 1976), processing information from one layer to the next, as well as across layers, is difficult (Bolman & Deal, 2008; Lunenburg & Ornstein, 1991; Weick, 1976). Vertical communication is accomplished through protocols outlining a chain of command. These include rules and regulation, policies and procedures, as well as department charges and individual job descriptions. This structure allows for efficient dissemination of information downward, but tends to retard the advance of information upward. Directives moving down the chain of command reflect the centralized decision-making structure of hierarchies (Bolman & Deal, 2008). However, moving information from one level in the hierarchy upward through several other levels may be a slow process. Because individuals on lower levels are subordinate to those on higher levels, the fidelity

of the information may be in question. Information may not be accurate by the time it reaches the intended level, complicating the superintendents' and principals' ability to make quality decisions. Horizontal communication, on the other hand, occurs when the complexity of the task requires rapid response and problem solving (Bolman & Deal, 2008). Information is passed across layers of the system through protocols established for this purpose (i.e. ad-hoc committees and task forces). These protocols may make unclear, however, the structure of authority within the district or school. That is, subordinates may find themselves subordinate to those offices through which horizontal communication occurs. In this case, rules and regulation, policies and procedures, as well as department charges and individual job descriptions may come to mean something entirely different from the original intent.

Study Procedures and Timeline

All data were collected during the summer and fall of 2014. What follows is a detailed description of the study procedures and timeline.

Phase 1: Principal Questionnaire and Site Selection

Head principals of Kentucky's 202 high schools were selected to participate during this phase. Principals were contacted via electronic mail and provided a link to a secure URL address containing an overview of the study, a statement of confidentiality, a detailed timeline and expectations for participants, and an informed consent to participate. Informed consent and confidentiality were described in detail on the first page of the questionnaire with an option to give consent as well as the option to exit the questionnaire at any time. After selecting their agreement to the informed consent, participants received access to the Web-based principal questionnaire. Participants were

sent a reminder three days after the initial contact, then again three days after that. An electronic reminder was sent one day prior to closing the questionnaire.

At the conclusion of the data-collection period, data collected was downloaded in a comma-separated values file. All data were saved on my secure home computer. Participants were identified solely by their current role (i.e., principal) and their school's designated performance outcome strata (i.e., high, medium, or low). Extant data became available to the public in the fall of 2013 and were collected and analyzed to place schools with the high, medium, and low performance strata. I used the prioritized criteria for site selection, including driving distance to my home, and selected three schools—one within each of the three performance outcome strata. Selected schools were those most similar in strategies and interventions identified by the principal, urbanicity, size, and percentage of students receiving free or reduced price lunch. One principal of the three selected schools within each stratum was contacted by phone and provided an overview of the study, a statement of confidentiality, a detailed timeline and expectations for participants, and asked of their willingness to participate. If a principal did not agree to participate, an alternate participant was notified. Selected principals were asked to identify three teachers to participate in the focus-group interviews during the second phase. After the principals made their selections, I randomly selected three additional teachers from the school's teacher roster to participate in the focus-group interviews during the second phase.

Teachers identified to participate in focus groups were contacted via electronic mail and provided an overview of the study, a statement of confidentiality, a detailed timeline and expectations for participants, and access to a secure URL address for a Web-

based informed consent. Participants were sent a reminder three days after the initial contact, then again two days after that. Table 3.3 details the timeline for administration of the principal questionnaire and participant selection.

Table 3.3

Principal Questionnaire Administration and Participant Selection Timeline

Timeframe (2014)	Element of Survey Administration or Participant Selection
July 1	202 Principals contacted via an electronic mail message containing an overview of the study and access to a secure URL address for the Web-based questionnaire
July 4	Follow up electronic mail sent to principals
July 7	Second follow up electronic mail sent to principals
July 10	Final electronic mail reminder sent to principals
July 11	Questionnaire data collection closed at midnight
July 12-19	Analysis of extant and questionnaire data and site selection
July 21-25	Selected principals will be contacted via phone, teacher participants will be selected
July 26	Selected teachers contacted via an electronic mail message containing an overview of the study and access to a secure URL address for the informed consent
July 29	Reminder electronic mail sent to teachers
July 31	Final electronic mail reminder sent to teachers
August 1	Participant selection closed or alternate participants contacted

If a teacher selected by the principal did not completed the informed consent by the end of the sixth day, the principal was asked to identify an alternate participant. If a teacher

selected by the researcher did not complete the informed consent by the end of the sixth day, I randomly selected an alternate participant. Table 3.3 details the timeline for administration of the principal questionnaire and participant selection.

Phase 2: Principal Interviews and Teacher Focus Groups

During the second phase of the study, principals and teachers were interviewed to explore their perceptions about organizational goal clarity and agreement, clarity and alignment of roles and responsibilities, and structural flexibility and adaptations. The head principal for each selected school participated in one semi-structured individual interview. Teachers identified by the principal and those randomly selected by me participated in semi-structured focus-group interviews. Because focus groups consisted of teachers within the same school, a total of three focus-group interviews were conducted. During this phase of data collection, participants shared their opinions and experiences related to the organizational structural characteristics supporting implementation of strategies and interventions identified by the principal during Phase 1 of the study. Interview and focus-group data were analyzed using the conceptual framework supported by constructs that were evident in the literature.

I conducted semi-structured interviews and focus groups that posed open-ended questions providing an opportunity for respondents to share their opinions and experiences specific to the organizational structural characteristics supporting implementation of strategies and interventions identified by the principal during Phase 1. I used a semi-structured protocol to allow study participants to engage in conversations about their relevant opinions and experiences while also allowing me the opportunity to use my knowledge and intuition to probe for deeper understanding (Wengraf, 2001). The

study participants and I had the opportunity to formulate shared meanings situated in the study framework (Denzin & Lincoln, 2011). Conversations were captured through research notes and digital recordings to ensure accurate and complete data collection.

Principal interviews. Three individual interviews were conducted during a three-week period. I contacted each principal one day prior to the interview to confirm the scheduled time. Individual interviews were conducted face to face at times and locations convenient to the principals, and interviews did not exceed one hour in length. Prior to beginning each interview, I discussed informed consent and confidentiality with the principal. In addition, all principals received a copy of the questions that were asked during the interview. Upon receipt of written consent, I began digital audio recording of the interview (see Appendix F).

The principal interviews were guided by 11 open-ended questions formulated to reflect the guiding questions of the study (see Appendix G). Principals were asked to respond to questions related to each construct within the conceptual framework of the study. When needed, I used probes to elicit additional information in order to gain a more accurate understanding of the principals' perceptions relevant to the constructs. All interviews were conducted by me, digitally recorded, and professionally transcribed.

Teacher focus-group interviews. Focus-group interviews with small groups of teachers were conducted at the schools selected for participation during the same three week period in August 2014. Principal approval was acquired through electronic mail or by telephone prior to scheduling. A reminder electronic mail message was sent to each focus-group participant, as well as to the principal, one day prior to the scheduled interview. Each focus-group interview was conducted face to face at a time convenient

for the teachers and least disruptive to the school day. Focus-group interviews did not exceed one hour in length. Prior to each focus-group interview, I discussed informed consent and confidentiality with the teachers. In addition, all participants received a copy of the questions that were asked during the focus-group interview. Upon receipt of written consent, I began digital audio recording of the interview (see Appendix H).

The focus-group interviews were guided by nine open-ended questions formulated to reflect the guiding questions of the study (see Appendix I). Teachers were asked to respond to questions related to each construct within the conceptual framework of the study. When needed, I used probes to elicit additional information to gain a more accurate understanding of the teachers' perceptions relevant to the constructs. All focus-group interviews were conducted by me, digitally recorded, and professionally transcribed.

Phase 3: Data Analysis

Interview data were professionally transcribed and uploaded into QSR International's NVivo 9 software to assist in the analysis. Data were analyzed to identify themes, patterns and relationships. Because the initial interview questions and focus-group protocol were reflective of the constructs evident in the literature, a framework approach (Ritchi & Spencer, 1994) was used to complete the coding process. Data were coded and associated with each construct relevant to the framework. Codes were assigned to words, phrases, sentences, or paragraphs using a variety of techniques. Early initial coding utilized strategies such as word repetitions and key words in context. When additional sense making was required, I deployed scrutiny-based techniques such as compare and contrast, querying the text, and examining absences (Denzin & Lincoln,

2011; Miles & Huberman, 1994). Coding techniques were applied at various phases in the analysis process, which began by open coding the data in order to develop categories of information. During the open-coding phase, I assigned initial codes or labels to the data. This step served to reduce the data to manageable categories. The next phase of analysis—axial coding—involved identifying consequences, interactions, conditions, or processes across and between categories or constructs (Creswell, 2007). Finally, I selectively coded the data. During this phase, I identified evidence to support themes previously developed, contrast between themes, or collapsed themes together.

Ensuring Trustworthiness

I utilized several techniques to address issues of trustworthiness evident in qualitative research. Unlike the conventional experimental precedent of attempting to show validity, soundness, and significance when supporting the quality of findings in quantitative studies, this study design sought to ensure credibility, transferability, dependability, and confirmability (Guba, 1981; Shenton, 2004). Table 3.4 provides a crosswalk between conventional experimental design elements of trustworthiness and those employed by this study.

Table 3.4

Elements of Trustworthiness

Conventional Element of Trustworthiness	Quantitative Element of Trustworthiness	Key Question
Internal Validity	Credibility	Do the findings represent reality?
External Validity	Transferability	Do descriptions allow readers to compare the described phenomenon with those that they personally observed?

Table 3.4 continued

Conventional Element of Trustworthiness	Quantitative Element of Trustworthiness	Key Question
Reliability	Dependability	Would similar results be found if other researcher used the same methods in the same context and with the same participants?
Objectivity	Confirmability	Are the findings the result of the experiences and ideas of the informants, rather than the biases of the researcher?
Internal Validity	Credibility	Do the findings represent reality?

Credibility

Ensuring credibility required me to employ techniques that helped to satisfy the requirement that the findings represent reality. To that end, I used the following techniques. First, the process for case and participant selection helped to minimize the potential for researcher bias. Cases were stratified using carefully defined criteria. Though final selection was done by convenience, the initial sorting process ensured cases were those that were most likely inform the questions guiding this study. Further, participants were both randomly and purposefully selected. Purposefully chosen participants were identified by the principal whereas randomly selected participants were identified using a random number generator in a Microsoft Excel and then sorted in ascending order. I began by selecting those at the top of the list. In this way, the selection of the participants was absent the influence of the researcher (Hamel, 1993; Yin, 2006).

Second, I cross checked the data using different methods. Data provided by the principals was crossed with data provided by the focus-group participants. In addition,

using two types of interview methodology provided additional cross checking, thus allowing for experiences and interpretations to be verified against others. While focus groups and interviews are similar and may suffer from similar limitations, their distinctions strengthen the study. Using different methods in concert compensated for limitations while leveraging the benefits of each method (Brewer & Hunter, 1989). In addition, the use of multiple perspectives contributed to the credibility of the study. Collecting a variety of perspectives in multiple ways created a more stable perspective of reality (Hamel, 1993; Yin, 2006).

Third, I leveraged interview techniques designed to ensure credibility. This involved the verification of my inferences formed during the data collection process (Guba, 1981; Shenton, 2004). Both the interview and focus group protocols concluded with a verification process. I reflected back to the participants the key inferences captured in the notes, and asked participants for clarification of their comments. In addition, each protocol used follow-up questions to probe for clarity. Further, all professional transcriptions transferred to the QSR International NVivo 9 software were reviewed by me for accuracy. Audio replay of each interview was referenced against the transcription, and notes providing context and elaborations were included to ensure accuracy. These data reviews increased the credibility of the findings by maintaining accurate accounts of participant responses.

Fourth, I provided detailed descriptions of each case and responses. This allows for findings to be situated in specific contexts and environments, and provides readers with the information necessary to make determinations about trustworthiness (Guba, 1981; Yin, 2006). Rich descriptions generated a basis for the themes and categories

derived from each account. I continually compared codes to the original data in order to maintain consistency and accuracy in coding and further ensure the trustworthiness of the study.

Transferability

Transferability is the qualitative methodological equivalent to external validity. It is concerned with the degree to which findings can be applied to other situations (Guba, 1981; Shenton, 2004). Post-positive inquiry suggests that phenomena are inseparable from the context in which they are observed and theory helps to define that context (Culbertson, 1999). Reality is beyond the scope of knowledge; however, knowledge of that reality is concrete and attainable (Shenton, 2004). In other words, phenomena are neither distinctly natural nor distinctly social; rather, they are only natural within the social context in which they manifest. Because that which is knowable is bound by context, context is universally important. Therefore, this study clearly outlines the boundaries and context of the research—noting the number of cases explored, participant selection procedures and rationale, data collection methods, and the research timeline. In addition, the same technique of using rich descriptions and narratives to bolster credibility also ensures transferability (Shenton, 2004).

Dependability

Dependability is concerned with the degree to which similar results would be found if other researcher employed the same methods repeated in the same context and with the same participants. However, because in qualitative research both the context and the observed phenomena are continually changing, replication is problematic (Culbertson, 1999; Shenton, 2004). However, while the study may lack reliability from a

positivist perspective, it addresses dependability through detailed reporting of procedures, protocols, and timelines. The research techniques used in this study are grounded in the research base and reported with transparency. In this way, the research design may be replicated in future studies (Shenton, 2004).

Confirmability

Confirmability is the qualitative methodological equivalent to objectivity. Confirmability is found in the degree to which the research findings are free of the effects of investigator bias (Guba, 1981; Miles & Huberman, 1994; Shenton, 2004). The same cross checking and interview techniques used to ensure credibility likewise helped to ensure confirmability. Additionally, the full disclosure and detailed reporting of the research methods and procedures that support transferability and dependability further ensure confirmability. Finally, I acknowledged and reported the predispositions and underpinnings guiding interpretations and analysis of the data (Miles & Huberman, 1994).

Ethical Considerations

Study participants were informed that they were participating in a research study and of the objectives of the study. Informed consent was obtained and participants acknowledged they understood that their participation was voluntary—they were not subject to coercion and they retained the right to withdraw from their participation in the study. The study questionnaire did not contain any language that may have been considered degrading, discriminating, or offensive to participants. In addition, participants were informed that information collected during the study was directly

related to the research questions and all responses and data containing identifying information remained confidential throughout all phases of the study.

Potential Study Limitations

At the time of the study, I was engaged in both policy development and implementation at the state level. While Kentucky adopted sweeping reforms, my role was to ensure districts and schools implemented with policy fidelity. I was also developing a capacity assessment tool—a fundamental component of which is structural capacity for change—for districts and schools to use in their implementation efforts. While my influence over the resources, communications, and guidance used to support local implementation was grounded in my appreciative stance of the need for structural capacity, I was committed to assuring that my bias did not influence my interpretation of data by asking another reader to review raw data. A second reviewer discussed the coding framework and findings as a strategy to prevent researcher bias.

This study was conducted in Kentucky school districts. Because the study utilized qualitative data collected in a specific context, the results cannot be interpreted as typical structural characteristics of all organizations successfully implementing educational policy reforms. Although study findings are not generalizable, this research adds to the knowledge base about effective policy implementation.

Summary

This comparative case study used extant data as well as data gathered through a researcher-developed questionnaire with open-ended questions, interviews, and focus groups. The data collection prompts focused on structural characteristics of schools performing at a variety of levels on the state's college-readiness metrics. Chapter 4

provides an analysis of the principal questionnaire responses that includes an overview of what strategies principals indicated their schools used to implement the Senate Bill 1 mandates as well as the site selection process and results. Chapter 5 presents findings from interviews with principals and teachers. Chapter 6 provides key findings and implications for state education agencies and schools.

CHAPTER 4

PRINCIPAL QUESTIONNAIRE FINDINGS

This study was designed to explore the interactions between implementation strategies, organizational structural characteristics, and performance outcomes using multiple data collection strategies. The first phase of this study included the administration of the researcher-developed principal questionnaire (see Appendix E), and served two purposes: (a) to identify specific strategies and interventions schools used to ensure students meet the college-ready requirements defined by the state accountability system, and (b) to aid in identifying the three specific cases to be studied based on the similarities of the strategies and interventions identified. At the time the study was conducted, Kentucky's K-12 school system was comprised of 173 school districts and a total of 1,233 public schools, including 229 high schools for which college-readiness data were available. Schools within the state's two largest districts as well as those receiving technical support from the state department of education were excluded from the study. The remaining principals at the 202 Kentucky high schools (Grades 9-12) were contacted through the Kentucky Department of Education (KDE) global electronic mail distribution system and invited to participate in the study by completing the online principal questionnaire. Of the 202 Kentucky high school principals (Grades 9-12) invited to participate in the principal questionnaire, 21 principals responded for a response rate of 10.3%.

Because the questionnaire was designed to explore phenomena related to the school and not the principal, demographic information about respondents was not collected. However, because the questionnaire required that the school and district be

identified, school-level information was collected from other sources. These other data were used later in Phase 1 of the study to select sites that were most similar as it relates to the prioritized criteria for site selection (see Table 3.2). Data identifying each school's performance outcomes on Kentucky's college-readiness measures as defined by the Kentucky School Accountability Model, school size, and percentage of students receiving free or reduced price lunch were obtained from Kentucky's publicly available Open House web site. Each school's ULOCALE code used in determining the school's urbanicity was obtained from the publicly available National Center for Education Statistics web site. What follows is a discussion about the principal questionnaire results.

School Characteristics of Questionnaire Respondents

For the purposes of this study, the following school characteristics were considered: performance outcomes on Kentucky's college-readiness measures as defined by the Kentucky School Accountability Model, urbanicity, school size, and percentage of students receiving free or reduced price lunch. What follows is a discussion of the school characteristics of the principal questionnaire respondents.

Performance Outcomes

College-readiness performance outcomes for the principal questionnaire respondent schools were obtained from Kentucky's publicly available Open House web site. Principal questionnaire respondent schools were classified by high, medium, and low performance on Kentucky's college-readiness measures from 2012 and 2013—the last year for which these data were available at the time of the study. High performance was defined as those schools in the top quartile of performance on college-readiness measures, while low performance was defined as those schools in the bottom quartile of

performance. Table 4.1 shows the number of principal questionnaire respondent schools within each performance classification.

Table 4.1

Principal Questionnaire Respondent School Performance Classifications

Classification	Total (N=21)
High Performance High School (HPS)	6
Medium Performance High School (MPS)	9
Low Performance High School (LPs)	6

Urbanicity

The National Center for Education Statistics uses an urban continuum, ranging from large city to rural, to classify the geographic status of an LEA; this continuum is identified as the LEAs locale code. The continuum is broken into four principle classifications: city, suburb, town, and rural. Each category is further broken down into three sub-classifications. Table 4.2 shows the classification and sub-classification for each ULOCALE code used in the urban continuum.

Table 4.2

Urban-centric Locale Codes and Classifications

ULOCALE Code	Classification	Sub-classification
11	City	Large
12	City	Midsize
13	City	Small
21	Suburb	Large

Table 4.2 Continued

ULOCALE Code	Classification	Sub-classification
22	Suburb	Midsize
23	Suburb	Small
31	Town	Fringe
32	Town	Distant
33	Town	Remote
41	Rural	Fringe
42	Rural	Distant
43	Rural	Remote

Because principals were asked to identify their school, each respondent's school could be placed on the urban continuum. Table 4.3 shows the number of principal questionnaire respondent schools within each urbanicity classification.

Table 4.3

Principal Questionnaire Respondent Urbanicity

ULOCALE Code	Classification	Total (N=21)
13	City, Small	4
21	Suburb, Large	1
22	Suburb, Midsize	0
31	Town, Fringe	0
32	Town, Distant	2
33	Town, Remote	3

Table 4.3 Continued

ULOCALE Code	Classification	Total (N=21)
41	Rural, Fringe	4
42	Rural, Distant	4
43	Rural, Remote	3

As Table 4.3 shows, 16 of the principal questionnaire respondent schools were located in areas considered to be towns (distant and remote) or rural (fringe, distant, and remote). The majority of those schools were situated in areas considered to be rural fringe and rural distant areas. However, there were also four respondents whose schools were situated in small cities. There were no respondents to the principal questionnaire from schools within the urbanicity classifications suburb midsize nor town fringe.

Size

School size for each principal questionnaire respondent school was obtained from Kentucky's publicly available Open House web site. For sense-making purposes, 13 size classifications were established. Schools with a student population ranging from 100-199 students were classified as 1. Schools with a student population ranging from 200-299 students were classified as 2, and so on. All schools with a population greater than 1,300 students would be classified as 13. Table 4.4 shows the classifications used to sort schools by size and the number of principal questionnaire respondent schools within each size classification.

Table 4.4

Principal Questionnaire Respondent School Size Classifications

School Size	Classification	Total (N=21)
100-199	1	0
200-299	2	2
300-399	3	4
400-499	4	0
500-599	5	4
600-699	6	0
700-799	7	2
800-899	8	2
900-999	9	1
1,000-1,099	10	0
1,100-1,199	11	0
1,200-1,299	12	3
1,300 or larger	13	3

As Table 4.4 shows, principal questionnaire respondent schools were situated within eight (8) of the school size classifications. None of the respondent schools fell into classifications 1, 4, 6, 10, or 11. Schools in size classifications 3, 5, 12, and 13 were most represented by the respondents.

Free or Reduced Price Lunch Population

Data showing the percentage of students receiving free or reduced price lunch (%FRL) for each principal questionnaire respondent school was obtained from

Kentucky's publicly available Open House web site. Data for two of the respondent schools were not available at the time of the study. The %FRL for the principal questionnaire respondent schools ranged from 16% to 60%. For sense-making purposes, five %FRL classifications were established. Table 4.5 shows the number of principal questionnaire respondent schools within each of the %FRL classifications.

Table 4.5

Principal Questionnaire Respondent School %FRL Classifications

%FRL Range (in %)	Classification	Total (N=19)
0-25	1	1
26-35	2	1
36-45	3	5
46-55	4	9
55-60	5	3

As Table 4.5 shows, 14 of the 19 schools for which data were available were situated within 2 classifications. There were nine principal questionnaire respondent schools in %FRL classification 4, and five principal questionnaire respondent schools in %FRL classification 3.

Principal Questionnaire Responses

The principal questionnaire asked respondents to identify specific strategies and interventions their school used to ensure students met the college-ready metrics defined by the state accountability system (see Appendix E). The questionnaire was divided into five questions. The first two questions asked for the name of the school and the district. Questions 3-5 asked about three categories of change strategies and interventions: (a)

more rigorous standards, (b) reducing remediation, and (c) new assessments. These three questions were selected responses items. Additionally, each question provided space for respondents to explain other strategies they may have used but that were not listed in the questionnaire. What follows is a discussion of the results by section.

Question 3: More Rigorous Standards

Question 3 included 13 specific strategies from which respondents could choose as well as an opportunity for them to explain other strategies they may have used but that were not listed in this section. Table 4.6 shows the number of schools that selected each identified strategy for implementing new standards, organized from the most selected to the least selected strategies. Each strategy is associated with its corresponding item identifier on the principal questionnaire.

Table 4.6

Principal Questionnaire Question 3 Responses

Number of Schools	Item	Strategy
20	3a	Training on the new standards
19	3b	Participating in the Kentucky Leadership Networks
16	3c	Redesigning curriculum maps
16	3d	Deconstructing of the standards
16	3i	Using classroom discussions that promote higher-order thinking skills
16	3j	Using questioning techniques that promote higher-order thinking skills
15	3g	Using of differentiated instructional strategies that make instruction accessible to all students

Table 4.6 Continued

Number of Schools	Item	Strategy
15	3k	Using learning tasks that promote higher-order thinking skills
14	3h	Using scaffolded instructional practices to help students develop reasoning and problem-solving strategies
12	3e	Redesigning course syllabi
12	3l	Integrating inquiry skills into learning experiences.
12	3m	Clarifying and sharing with students learning intentions/targets and criteria for success
11	3f	Using standards-based units of study
0	3n	Other (please describe)

As Table 4.6 shows, 20 of the 21 responding principals indicated that their school leveraged training on the new standards as a strategy for implementing new standards. In contrast, only 11 of the responding principals indicated that their school implemented standards-based units of study. It should be noted that every strategy listed under Question 3 of the principal questionnaire was identified as having been used, but none of the strategies were used unanimously. Further, strategies 3a, 3b, 3c, and 3d were strategies for which the state provided significant implementation support. Specifically, the Kentucky Leadership Networks were the vehicle through which much of this state-level support took place.

Considering how many different strategies schools used to implement new standards was equally as important as considering which strategies schools implemented.

Table 4.7 shows how many of the 13 strategies for implementing new standards were identified by respondents, organized from the greatest number of strategies to the least number of strategies.

Table 4.7

Number of Strategies Selected by Respondents for Implementing New Standards

Number of Strategies Selected	Number of Respondents
13	2
10 or more	8
9 or more	12
7 or more	19
4 or more	21

As Table 4.7 shows, two of the responding principals indicated that their schools used all 13 strategies in order to implement new standards. More than half of the respondents indicated their schools used nine or more of the specified strategies and two respondents used less than seven strategies.

Question 4: Reducing Remediation

Question 4 included 20 specific strategies from which respondents could choose as well as an opportunity for them to explain other strategies they may have used but that were not listed in this section. Table 4.8 shows the number of schools that selected each identified strategy for reducing remediation, organized from the most selected to the least selected strategies. Each strategy is associated with its corresponding item identifier on the principal questionnaire.

Table 4.8

Principal Questionnaire Question 4 Responses

Number of Schools	Item	Strategy
19	4i	Using Extended School Services (ESS) for interventions
16	4d	Allowing open enrollment for Advanced Placement courses
16	4e	Providing Dual Credit course options
15	4k	Providing dedicated intervention time within the regular school class schedule
14	4b	Training on progress monitoring
14	4g	Providing Early College or Middle College options
13	4c	Increasing the number of Advanced Placement courses
12	4a	Training on interventions
11	4m	Embedding High School intervention curriculum into English and Math courses
10	4f	Providing Concurrent Enrollment course options
8	4j	Using a Lab model for interventions (i.e. providing students direct instruction in their regular classroom and extensions or interventions in the lab classroom)
8	4s	Using the Individual Learning Plan (ILP) online tool for creating and tracking educational plans and goals for students
7	4n	Pulling students out of elective courses to participate in interventions
6	4o	Using the state-developed intervention courses/curriculum
4	4t	Developing graduation plans for incoming students

Table 4.8 Continued

Number of Schools	Item	Strategy
3	4l	Providing interventions during scheduled lunch times
3	4p	Using district-developed intervention courses/curriculum
3	4q	Using the state-developed Persistence to Graduation Tool to trigger interventions
3	4r	Using an early warning system, other than the state-developed Persistence to Graduation Tool, to trigger interventions
1	4h	Providing International Baccalaureate course options
0	4u	Other (please describe)

As Table 4.8 shows, 19 of the 21 responding principals indicated that their school used extended school services for interventions. Nine strategies in all were used by more than half of the respondents: 4i, 4d, 4e, 4k, 4g, 4c, 4a, and 4m. The 11 remaining strategies were used by less than half of the respondents, and five of the strategies were selected by fewer than four respondents. It should again be noted that every strategy listed under question 4 of the principal questionnaire was identified as having been used, but none of the strategies were used unanimously.

As with Question 3, considering how many different strategies schools used in their efforts to reduce remediation was equally as important as considering which strategies schools implemented. Table 4.9 shows how many of the 20 strategies for reducing remediation were identified by respondents, organized from the greatest number of strategies to the least number of strategies.

Table 4.9

Number of Strategies Selected by Respondents for Reducing Remediation

Number of Strategies Selected	Number of Respondents
15	1
10 or more	10
7 or more	15
3 or more	21

As Table 4.9 shows, none of the respondents indicated that their schools used all 20 identified strategies for reducing remediation. The greatest number of strategies used by any one school was 15. Half of the respondents indicated that their schools used half of the identified strategies, and six respondents indicated they used fewer than seven of the identified strategies.

Question 5: New System of Assessments

Question 5 included 10 specific strategies from which respondents could choose, as well as an opportunity for them to explain other strategies they may have used but that were not listed in this section. Eighteen of the 21 responding principals indicated that their school used collaborative data review as a strategy for implementing new assessments. Nine of the 10 strategies listed were used by more than half of the respondents. As was the case for Questions 3 and 4, every strategy listed under Question 5 of the principal questionnaire was identified as having been used, but none of the strategies were used unanimously. Table 4.10 shows the number of schools that selected each identified strategy for implementing new assessments, organized from the most

selected to the least selected strategies. Each strategy is associated with its corresponding item identifier on the principal questionnaire.

Table 4.10

Principal Questionnaire Question 5 Responses

Number of Schools	Item	Strategy
18	5h	Reviewing student data collaboratively by teachers
15	5c	Training on assessment literacy (i.e. knowledge and skills related to the basic principles of quality assessment practices)
15	5f	Using classroom-level progress monitoring
13	5i	Reviewing student data collaboratively by administrators
12	5e	Using diagnostic assessments
12	5g	Using school-level progress monitoring
11	5a	Training on the classroom-level progress monitoring
11	5b	Training on Classroom Assessment for Student Learning
11	5j	Reviewing student data collaboratively by teachers and administrators together
9	5d	Using universal screeners
0	5k	Other (please describe)

Once again, considering how many different strategies schools used in their efforts to implement new assessments was equally as important as considering which strategies schools implemented. Table 4.11 shows how many of the ten strategies for implementing new assessments were identified by respondents, organized from the greatest number of strategies to the least number of strategies.

Table 4.11

Number of Strategies Selected by Respondents for Implementing New Assessments

Number of Strategies Selected	Number of Respondents
10	2
7 or more	10
5 or more	14
3 or more	19
2 or more	21

As Table 4.11 shows, two respondents indicated that their schools used all ten identified strategies for implementing new assessments. Half of the respondents indicated that their schools used 7 or more of the identified strategies, and 14 respondents indicated they used at least half of the identified strategies. Five of the 21 respondents used fewer than 4 of the identified strategies.

Considering All Responses

The principal questionnaire asked respondents to choose which of the 43 specified strategies for implementing the requirements of Senate Bill 1 their schools were using. To understand better how schools are implementing Senate Bill 1, it may be helpful take a global picture of the questionnaire results. Four strategies were selected by 18 of the 21 respondents: (a) training on the new standards, (b) participating in the Kentucky Leadership Networks, (c) using Extended School Services (ESS) for interventions, and (d) reviewing student data collaboratively by teachers. Fifteen or more of the 21 respondents indicated that their schools used 15 of the 43 specified strategies. Eight of those strategies related to implementing new standards, four to reducing remediation, and

three to implementing new assessments. The 10 least used strategies were those used for implementing new assessments. Interestingly, no more than 8 of the 21 respondents indicated they used those strategies.

Considering how many different strategies schools used in their efforts to implement Senate Bill 1 was equally as important as considering which strategies schools implemented. Table 4.12 shows how many of the 43 strategies listed on the principal questionnaire were identified by respondents, organized from the greatest number of strategies to the least number of strategies.

Table 4.12

Total Number of Strategies Selected by Respondents

Number of Strategies Selected	Number of Respondents
37	1
30 or more	5
20 or more	16
16 or more	20
13 or more	21

As Table 4.12 shows, only one principal indicated that their school used 37 of the 43 identified strategies for implementing Senate Bill 1, while five respondents indicated their schools used 30 or more. Over half of the respondents indicated that their schools used 20 or more of the identified strategies, and 20 respondents indicated they used at least 16 of the identified strategies. Only one respondent indicated their school used less than 16 of the identified strategies.

Most Similar Systems Site Selection

The second part of Phase 1 was the selection of the three specific cases to be studied based on the similarities of both the school characteristics and the strategies and interventions identified on the principal questionnaire. To facilitate this selection process, schools were first sorted by high, medium, and low performance on Kentucky's college-readiness measures from 2012 and 2013 state data. Next, I used the prioritized criteria described in Table 3.2 for selection of schools across performance stratum for comparison. After consideration of the prioritized criteria, three high schools were selected by convenience relative to my home. What follows is a discussion of the similarities of the three selected high schools.

Principal Questionnaire Responses

The three high schools selected for comparison had multiple commonalities regarding the strategies they identified on the principal questionnaire. Table 4.13 shows all of the strategies for implementing new standards listed on the questionnaire. Strategies that were not identified by any of the three principals from the selected high schools are italicized.

Table 4.13

Strategies for Implementing New Standards

Item	Strategy
Q3a	Training on the new standards
Q3b	Participating in the Kentucky Leadership Networks
Q3c	Redesigning curriculum maps
Q3d	Deconstructing of the standards

Table 4.13 continued

Item	Strategy
Q3e	Redesigning course syllabi
Q3f	Using standards-based units of study
Q3g	Using of differentiated instructional strategies that make instruction accessible to all students
Q3h	Using scaffolded instructional practices to help students develop reasoning and problem-solving strategies
Q3i	Using classroom discussions that promote higher-order thinking skills
Q3j	Using questioning techniques that promote higher-order thinking skills
Q3k	Using learning tasks that promote higher-order thinking skills
Q3l	Integrating inquiry skills into learning experiences
Q3m	Clarifying and sharing with students learning intentions/targets and criteria for success
Q3n	*Other*

Table 4.14 shows all of the strategies for reducing remediation listed on the questionnaire. Strategies that were not identified by any of the three principals from the selected high schools are italicized.

Table 4.14

Strategies for Reducing Remediation

Item	Strategy
Q4a	Training on interventions
Q4b	Training on progress monitoring
Q4c	Increasing the number of Advanced Placement courses

Table 4.14 continued

Item	Strategy
Q4d	Allowing open enrollment for Advanced Placement courses
Q4e	Providing Dual Credit course options
Q4f	Providing Concurrent Enrollment course options
Q4g	Providing Early College or Middle College options
Q4h	*Providing International Baccalaureate course options*
Q4i	Using Extended School Services (ESS) for interventions
Q4j	Using a Lab model for interventions (i.e. providing students direct instruction in their regular classroom and extensions or interventions in the lab classroom)
Q4k	Providing dedicated intervention time within the regular school class schedule
Q4l	*Providing interventions during scheduled lunch times*
Q4m	Embedding High School intervention curriculum into English and Math courses
Q4n	*Pulling students out of elective courses to participate in interventions*
Q4o	Using the state-developed intervention courses/curriculum
Q4p	*Using district-developed intervention courses/curriculum*
Q4q	*Using the state-developed Persistence to Graduation Tool to trigger interventions*
Q4r	*Using an early warning system, other than the state-developed Persistence to Graduation Tool, to trigger interventions*
Q4s	Using the Individual Learning Plan (ILP) online tool for creating and tracking educational plans and goals for students
Q4t	Developing graduation plans for incoming students
Q4u	*Other*

Table 4.15 shows all of the strategies for implementing new assessments listed on the questionnaire. Strategies that were not identified by any of the three principals from the selected high schools are italicized.

Table 4.15

Strategies for Implementing New Assessments

Item	Strategy
Q5a	Training on the classroom-level progress monitoring
Q5b	Training on Classroom Assessment for Student Learning
Q5c	Training on assessment literacy (i.e. knowledge and skills related to the basic principles of quality assessment practices)
Q5d	Using universal screeners
Q5e	Using diagnostic assessments
Q5f	Using classroom-level progress monitoring
Q5g	Using school-level progress monitoring
Q5h	Reviewing student data collaboratively by teachers
Q5i	Reviewing student data collaboratively by administrators
Q5j	Reviewing student data collaboratively by teachers and administrators together
Q5k	*Other*

Figure 4.1 is a visual model showing the similarities and differences in the principal questionnaire responses for the three selected high schools. The diagram identifies strategies that are unique to each school, common to two schools, and common to all three schools.

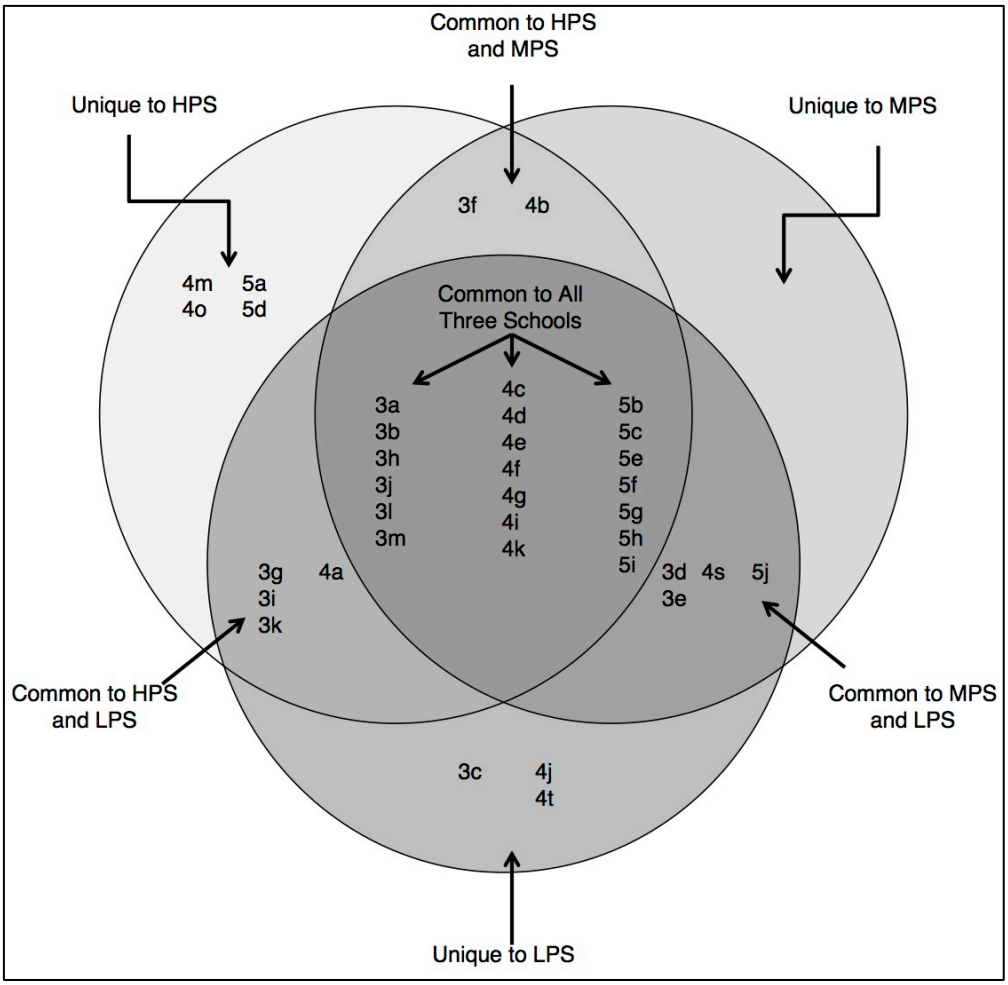

Figure 4.1. Similarities and differences in the principal questionnaire responses.

Of the 43 strategies listed on the principal questionnaire, there were 20 that were common across the three high schools. The HPS had four unique strategies, the LPS had three unique strategies, and the MPS did not have any unique strategies. The HPS had two strategies in common with the MPS, and four strategies in common with the LPS. The MPS had four strategies in common with the LPS. There were additional similarities across the three high schools related to the number of strategies they identified. Table 4.16 shows the number of strategies each of the selected high school principals identified by question, as well as in total.

Table 4.16

Number of Strategies by Selected High School

School	Q3	Q4	Q5	Total
HPS	10	11	9	30
MPS	9	9	8	26
LPS	12	11	8	31

Prioritized Criteria

Selected high schools also had to be similar in regards to urbanicity, size, and %FRL. These high schools were similar in all of these categories, though they were not identical. Table 4.17 shows the similarities in the prioritized criteria across the selected high schools.

Table 4.17

Prioritized Criteria Similarities

High School	Urbanicity (Code)	Size (Classification)	%FRL
HPS	Rural, Fringe (41)	500-599 (5)	47%
MPS	Rural, Fringe (41)	800-899 (8)	48%
LPS	Rural, Remote (43)	500-599 (5)	52%

As Table 4.17 shows, both the HPS and MPS were rural fringe, while the LPS was rural remote. The difference between these classifications is defined by how far the school is from an urbanized area. Schools are considered to be rural fringe if they are no more than five miles from an urbanized area, whereas schools are considered to be rural

remote if they located more than 25 miles from an urbanized area. However, the ULOCAL codes for these schools place them all outside urbanized areas or urban clusters. Additionally, both the HPS and LPS had a student population between 500 and 599 students while the MPS had a student population between 800 and 899 students. The MPS, though it was larger, had a smaller %FRL when compared to the LPS. The HPS had the smallest %FRL. While the %FRL was not identical across the three high schools, they were very similar.

Summary

Analyses of the principal questionnaire suggested that there were four primary strategies used by schools to implement Senate Bill 1: (a) Training on the new standards, (b) participating in the Kentucky Leadership Networks, (c) using Extended School Services (ESS) for interventions, and (d) reviewing student data collaboratively by teachers. These strategies were common among the majority of respondents. According to questionnaire data, these schools used more strategies for implementing new standards and fewer strategies for implementing new assessments. Additionally, most schools indicated they were using over 16 different strategies to implement the Senate Bill 1 requirements. Questionnaire respondents established the sample pool from which three high schools were selected for comparison in Phase 2 of the study. The selected high schools were similar with regards to their urbanicity, size, and %FPL, yet they differed in their performance outcomes on Kentucky's college-readiness accountability measures. Chapter 5 presents findings from analysis of commentary generated through individual interviews with principals and focus-group interviews with teachers about the way in which organizational structural characteristics of the schools support implementation of

the state policy. Chapter 6 provides key findings and implications for state education agencies and schools.

CHAPTER 5

INTERVIEW AND FOCUS GROUPS FINDINGS

The second phase of this study addressed this research question: How do structural characteristics within high schools support implementation Kentucky Senate Bill 1? This research question ascertained teacher and principal perceptions related to organizational structure—specifically, organizational goal clarity and agreement, characteristics of individual roles and responsibilities within the organization, and structural flexibility and adaptations.

Data for Phase 2 of the study were collected through face-to-face interviews with principals and focus-group interviews with teachers at the High Performance High School (HPS), the Medium Performance High School (MPS), and the Low Performance High School (LPS). The goal of these interviews was to gather perceptions about how structural characteristics within each school supported implementation of Senate Bill 1 strategies and interventions.

Professionally prepared transcriptions of the interviews were uploaded into QSR International's NVivo 9 software to assist in the analysis. Because questions on the initial interview and focus group protocols reflected the organizational structural characteristics framework evident in the literature, a framework approach (Ritchi & Spencer, 1994) was used to complete the coding process. Data were coded and associated with each of the constructs relevant to the framework. The process of coding began with open coding, followed by axial coding, followed by selective coding as previously described in Chapter 3. Findings reported in this chapter are based on researcher interpretation of commentary generated at the three selected high schools.

Organizational Goals

Organizational goals were a constant topic of conversation throughout all of the interviews in all three high schools. This was true, in part, because I asked participants to speak specifically about the goals of their respective school. But this was also true because participants linked organizational goals to other topics later on in the discussion. Thus, several themes and categories emerged within the organizational goals construct. Participants noted an alignment between the school's goals, resources, state policy, and both stated and real goals. At one high school, these goals appeared to be systemic or embedded across the school. At the other two high schools, evidence of a systemic approach to goals appeared to be lacking. Table 5.1 shows the themes and categories that emerged within the Organizational Goals construct. The themes represent the combined perceptions of the principal and teachers, and paint the picture of the organizational goal construct across all three high schools.

Table 5.1

Organizational Goals: Themes and Categories

Themes	**Categories**
Alignment	Resource Alignment
	Policy Alignment
	Goal Alignment
Systemic and Shared	
Goal Clarity	

Alignment

The alignment theme was evident in my discussions with all three high schools and three categories emerged: (a) resource alignment, (b) policy alignment, and (c) goal alignment. Resource alignment refers to the way in which available dollars and time were allocated in order to achieve the identified goals. Policy alignment refers to the alignment between each school's goals and Senate Bill 1 requirements. Goal alignment refers to the interaction between the formal, overt goals of the school and the informal goals of the school. Discussions with personnel at both the HPS and MPS revealed evidence of resource alignment, while this same evidence was lacking in the LPS. Personnel at all three high schools suggested there was alignment between their school goals and Senate Bill 1 expectations, as well as alignment between formal (stated) and informal (real) goals.

Resource alignment. Data gathered at both the HPS and MPS suggest that these schools were in some way leveraging available dollars and time in order to achieve the identified goals. Time, it should be noted, did not necessarily represent additional time but rather it was time allocated or used in a different way. For example, time used for planning and collaborating was built into the regular school day. When I asked the principal at the HPS about their use of time he noted, "We made an effort to get common plan for our core departments so that all the [mathematics] teachers plan the same period, as well as all the science teachers." A teacher at the HPS echoed this statement saying, "Well, now with the PLC's, and us having common planning, that's made a big difference." When I later asked the principal to explain how PLCs worked differently, he said, "A couple years previous to that, our PLCs had to meet after school and now they

can meet during the school day." Likewise, the principal at the MPS stated, "We felt like it was important enough to rearrange our schedule to allow those people to have not only a planning period but also first period to work on the school instructional leadership team." In both cases, the schools leveraged existing time in order to implement the strategy.

In addition to reallocating time within the school day, personnel at the HPS stated that they had not added additional professional development days to the schedule. Rather, they leveraged the existing time spent in professional development in order to support their school's goals. The principal explained, "We'll spend, again after data comes out each year, a PD day looking at a needs assessment, looking at what the data is, what it's telling us, what our needs are, how we might best address those needs." He later made it clear that these days were not additional professional development days. Teachers at the HPE confirmed these statements. When I asked the teachers how implementation of Senate Bill 1 impacted their training requirements, one teacher explained, "Almost all of our professional development days is interpreting test data and setting goals."

Personnel at both the HPS and MPS also made clear their commitment to align financial resources to their respective school goals. At the HPS, this alignment was not the result of a new influx of dollars, but rather it was the result of leveraging existing dollars in new ways. At the MPS, this alignment was the result of both an influx of dollars from the district and a leveraging of school-level dollars in new ways. The principal and teachers at the HPS clearly described their school's financial alignment to

the goals. The principal made note of the way the school leveraged available funding to support interventions for students by funding an additional tutor.

> Now we're using some of our ESS money or monies that we might have spent somewhere else to hire a tutor that we probably would not have hired if we weren't looking at this end-of-course area and realizing that these kids are falling behind. Our ESS money would have been available to just about any student, and I'm not saying it's not still available to just about any student, but there's more significant focus on those students that are struggling to reach a benchmark in an end of course area or a senior that is not quite college and career ready yet.

Similarly, the principal at the MPS articulated how they leveraged available funding to support interventions for students:

> I have a few Title I funds. It was used in the ESS monies but my Title I director said you can use Title I funds because we were not Title I a couple of years ago. I have a teacher that does RtI. We pull kids from electives depending on what their needs are, one to four days a week.

Teachers at the MPS also said they leveraged newly available dollars from the district. These teachers referenced how the district had provided additional funding to support the school's goals. One teacher stated, "[Mathematics] got a huge push and it probably all came from the more attention. Our board paid a college professor to come in and help us get a curriculum alignment to the timeline." Another teacher recalled how this financial alignment was evident by contrasting it to past experiences:

> Teachers have always tutored everywhere I've ever been. There's always been an extra [mathematics] tutor. But it's paid now by the school. They pay teachers to stay after the tutor now whereas even though [mathematics] teachers have always done that, there's not been that push through the school so they haven't always been paid.

It was somewhat telling that the teachers and principals at both the HPS and MPS could articulate in what ways time and financial resources were aligned to the school

goals. Equally as telling may be the omission of these statements from the teachers and principal at the LPS.

Policy alignment. At all three high schools, teachers and principals indicated that their respective schools' goals were aligned with Senate Bill 1 expectations. They were explicit about how school goals were driven by the state accountability system. When I asked the principal at the HPS about his school's goals, he stated, "Our goal this year is 92[% of students considered college ready]." He went further to explain the link between the state accountability system and the process by which his school ensures they are focused on meeting the expectations of that system. He used the example of a biology teacher making predictions about where her students might score on the biology end-of-course exam. The principal and teacher would then use these predictions to determine how many points the school might receive in the accountability system. In this way, each individual teacher's goal for the year were aggregated to predict the likelihood that the school would meet their accountability goals. To add additional clarity, the principal said, "The goals are solely based on the school report card." Likewise, the principal at the MPS explained how their school goals were driven by the accountability system:

> I spend all this time making sure they're ready for the [state test] because we need them to score at 74 on the English portion so we can get a point. They're all points. They're a point or they're a point-and-a-half. I've got that list of kids. This one is a point, maybe we can get a point-and-a-half out of it. I mean, I hate to say but that's how far we've gone because we need to score well to get to our goal.

The principal at the LPS made reference to this link as well, suggesting that his school's goals were handed down from the state to the school based on the accountability system:

> One of the goals and the way the state is supporting [our] school improvement planning is [that] they give us deliverables in each of the accountability areas. Of course, one of those areas is the percentage of kids that are college ready.

According to him, these deliverables became the school goals.

The principals were not alone in this perception. Teachers agreed that the goals were aligned with Senate Bill 1 expectations. One teacher at the HPS said, "I don't think we had specific goals until we had Senate Bill 1." Another teacher stated that the goals all come from "[end of course] and ACT benchmarks." Still another teacher recounted, "We are educating kids all as if they are going to go to college, and we have to get full accountability points." Likewise, teachers at the MPS agreed. For example, one teacher said,

> State measures for College and Career Readiness, I feel like, [have] helped us target specific students and move specific students from where they are to where they need to be. It's allowed us to meet those goals more effectively.

The teachers at the LPS echoed these sentiments. One teacher provided an example of how her goals were connected to the accountability system. She said her goal was to have 80% of her students score proficient on the end-of-course assessment for her content area. This teacher's example prompted another teacher to clarify. He explained that, in reality, the teachers and the principal have a much more rigorous goal: "A hundred percent college career ready. That's the goal: 100% college or career ready." In all three schools, participants were very clear that their schools' goals were both aligned with, and driven by, the state accountability system.

Goal alignment. Stated goals are characterized by formal statements that are often written and prescribed for everyone in the school. Real goals are those that are less formal, less prescribed, and often evident in behaviors and strategies. While there was

clear evidence of stated goals at each of the three high schools, there was also evidence of real goals in each of the three high schools. More importantly, there was evidence of alignment between the stated and real goals in all three high schools.

All three principals explained that the real goals were very clear in their statements detailing the specific school goals—those measurable and directly tied to the state accountability system. One teacher expounded on his principal's statements when he said, "We are educating kids all as if they are going to go to college, and we have to get full accountability points." Another teacher stated, "Not only am I teaching all day, but I have to test all these kids [so that we can get accountability points]." Yet another teacher explained how the school goals were found specifically in the school improvement plan—a document developed to ensure the school meets accountability measures. These statements tie together the real and stated goal: ensure students are college ready (as defined by the state) and ensure the school receives the maximum accountability points possible. The stated goals make no mention of accountability points, but the participants did mention accountability. However, because the teachers clearly connected the stated goals of college-readiness scores and ACT benchmarks with the accountability system, it suggests some alignment between the real and stated goals of the school existed. That is, there appeared to be agreement that, if the school engages in meeting the real goals, the stated goals will also be achieved.

Systemic and Shared Goals

Participants at all three schools were able to clearly articulate the goals of their respective schools. However, participants at the HPS specifically noted a systemic approach to school goals. Both the principal and the teachers at the HPS suggested the

school's goals were developed and operationalized throughout the school. There was an understanding that component units of the school must contribute to the overall school goals. As a result, students set goals, teachers set goals, and departments set goals—each one tied to the goals of larger organizational unit (i.e., student to teacher, teacher to department, department to school).

In response to my questions about the goal-setting process at the HPS, one teacher said, "All the kids have their own individual goals." This was followed by an explanation from another teacher: "We take their scores from their tests and they have to look at their score and see how they want to move it up for the next test." This process of student goal-setting is a way to ensure each teacher meets his or her own goals for the courses they teach, and those goals help define departmental goals. According to one HPS teacher, those departmental goals were "made collectively" by the teachers. The principal at the HPS recognized that teachers were the ones who needed to make those goals when he stated, "I can't set those goals for those departments." Both the teachers and the principal suggested that departmental goals help contribute to the overall school goals. The principal noted that "all of the teachers, I should say departments, give us goals," and "we incorporate teacher goals into school-wide goals." The principal further explained that "the end-of-course goals that the individual teachers set really go right into place with our overall goals." The principal was clear in suggesting that this alignment is a necessary construct for ensuring the school succeeds.

> If our overall goal is to be a proficient school, distinguished school, then we're not going to be able to get there if we don't take a look at our numbers and try to get those up. [I] wouldn't force [teachers] to change their individual goals, but [I] would obviously encourage them before we start printing out our posters or before we make that goal set in stone for the year.

The principal added, "If the individual teachers had set goals that wouldn't get us to a level of proficiency for the school at the end of the year, then I would end up addressing that with those individual departments."

Goal Clarity

Participants at all three high schools indicated that their respective school goals were clear. Because principals and teacher at all three high schools noted the alignment between state policy (i.e., accountability) and school goals, participants were clear on what the goals were as well as how they were measured. There was evidence throughout the interview data that the goals were specific. There was little evidence that goals were too broad or general for participants to understand.

The principal at the HPS clearly articulated his school's college-readiness goals. In reflecting on the first year of reporting on the new state accountability system, the principal was able to recite the percentage of students considered college ready with specificity. He said, "I think when we got our first college and career readiness data we may have been at 24%. Our goal this year is 92[%]. We were at a little over 90[%] last year. We've gone in just a few years from 24% to 90%." The LPS principal also noted clarity with this statement: "[The state gives] us deliverables in each of the accountability areas and of course one of those areas is the percentage of kids that are college and career ready."

Teachers at all three high schools supported this idea of goal clarity. Teachers explained that goals were posted in the hallways of the schools and written in mission statements and in improvement plans. They explained that school goals were specific and measurable, and most of them could recite exactly what the goals were. Because the

measures of success were also clearly understood, there seemed to be general understanding of what actually had to happen in order to meet the goals. One teacher at the LPS explained that the Kentucky Core Academics Standards are a guide for curriculum development, but their real strategy is "to align everything to the end-of-course tests and the ACT. That's where we've ended up just because that's where the high stakes accountability is." A teacher at the MPS explained that these goals have "helped us target specific students." At the HPS, one teacher suggested that his school recognized the accountability system's reliance on ACT data to meant the school had to focus on increasing mathematics and reading scores. While the specific goals for all three high schools may have differed, it was evident that participants from all three high schools had some degree of clarity about their respective goals.

Organizational Goals: Differences Across Schools

All three high schools showed similar structural characteristics related to the organizational goals construct, specifically around financial resource alignment, policy alignment, alignment between real and stated goals, and goal clarity. However, two notable differences did emerge. At the HPS and MPS there was evidence that the resource of time was aligned with the organizational goals. At the HPS, there was evidence that organizational goals were systemic. While teachers and principals at the MPS and LPS did not necessarily say that goals were not systemic, there was no evidence to suggest these same themes existed in these two high schools. The principal and teachers at the HPS made it clear that their school utilized a systemic approach to organizational goals.

Structural Flexibilities and Adaptations

Structural flexibilities and adaptations were evident in the principal and focus-group interviews at both the HPS and MPS. Within this construct, only one dominant theme emerged: shifts to the school schedule. The theme represents the combined perceptions of the principal and teachers and paints the picture of the structural flexibilities and adaptations construct across the two high schools. At the LPS, evidence of this same theme appeared to be lacking.

School Schedule

I asked teachers and principals if Senate Bill 1 implementation had any impacts to their school schedule. Both teachers and principals at the HPS and MPS were clear that their school made such shifts. At the HPS, these shifts were primarily in an effort to meet the needs of students they had identified as the most struggling. The principal at the HPS noted that their school developed courses specifically for students who were not meeting benchmarks in tested content areas. He explained, "We start comparing where students were to what their goals were. We needed to provide some additional interventions so we began considering how to add those in." These new courses were specific to areas addressed by the state policy. Thus, because both mathematics and biology are tested subject areas, his school created intervention courses called Math Intervention and Biology Intervention. The school even created a "catch-all" course called College and Career Readiness. The HPS used this course to provide seniors with interventions in any and all content areas in which they struggled to meet state benchmarks. These courses are stand-alone courses that follow a sequence depending on how the student is performing; thus, the structural adaption is the addition of courses.

Interventions for students failing to meet benchmark are, therefore, not a function of pulling a student out of a course and providing additional support during regular instruction. Rather, these represent a new set of courses altogether. The principal said, "We'll put those students in a college and career-ready course whether it be in a [mathematics] or English, [to] try to provide them some additional support and then re-test those students at the end." Teachers noted this change in structure as well. During the focus-group interview at the HPS, one teacher explained, "We'll pull them out of other classes and we'll do the RtI classes with them. If they don't reach their [mathematics] benchmark, there's the fourth year [mathematics course]." The principal stated that these new courses are a direct result of the school's attempt to meet the demands of Senate Bill 1:

> Introducing our college and career readiness courses for the seniors and introducing our [mathematics] and science and English intervention courses at the sophomore and junior level are all [interventions] that we probably would not have put in place had it not been for the requirements of Senate Bill 1.

In addition to the additional courses, the school made significant changes to the overall schedule. According to the principal, this was also a direct result of state policy:

> Senate Bill 1 had a huge impact on our school's schedule because we chose to take those courses like the biology, the [state-tested courses] and make them year-long courses so they meet for all three trimesters whereas most of our other courses only meet for two trimesters.

This structural shift allowed students to have more time in a course in which they were struggling. Teachers discussed this shift as well. One teacher noted, "It's a class that we call integrated math, [which] takes up five trimesters instead of three. It kind of is an intervention because we're giving them more time to learn the same material." Other teachers echoed the statement, explaining that they had been a part of one of these

extended intervention courses. One teacher said, "I had one last trimester," while another teacher stated, "I had one first trimester with 15 kids." A third teacher went on to say, "I think [Senate Bill 1] has changed the entire structure of our day."

The schedule shifts for instructional purposes at the MPS did not necessarily target students deemed to be the most struggling. Rather, the schedule shift was meant to bolster the rigor of instruction for all students. The principal at the MPS said the school moved from a block schedule to a more traditional seven period day. He suggested that this shift in schedule actually created more instructional time. He explained that, with the block schedule, there was less total instructional time over the course of the academic year. The block schedule allowed for roughly 135 hours of instructional time while the tradition seven-period schedule allowed for roughly 165 hours of instructional time. He then explained that, while the block schedule was beneficial for administrators (i.e., fewer classroom observations to manage), it was not necessarily beneficial to students and teachers. When I asked teachers at the MPS to explain the shift in schedule, they agreed that the shift was in an effort to allow for more instructional time. One teacher explained,

> We had a modified four-period block schedule. It wasn't a traditional six-period day. We had five traditional length periods and then one that was only a semester long but supposedly twice the amount of time. Now we have a seven-period day. We have more time when you look at the entire year.

The schedule change allowed the school to provide more rigorous courses, according to participants. The principal noted,

> We did run a chemistry [course] and then a course called ICP, which is intro in chemistry and physics. We've gone straight to chemistry and physics so kids have a choice. ICP was just really watered down. It was just not rigorous enough.

A teacher also noted that, as a result of the schedule shifts "We have AP classes. We have advanced classes." Yet another stated plainly, "The schedule changes allowed us to offer more rigorous courses for kids."

Structural Flexibilities and Adaptations: Differences Across Schools

The most notable and obvious difference between the high schools was the lack of evidence of structural flexibilities and adaptations at the LPS. Principals and teachers at both the HPS and MPS noted specific structural changes and shifts that occurred as a result of their efforts to implement the Senate Bill 1 requirements. The principal and teacher at the LPS suggested that no structural shifts occurred at their school. When discussing the impact of Senate Bill 1 on their school's schedule, the LPS principal and teachers stated that there was no impact. Moreover, they suggested that the school schedule and general organization had remained relatively constant.

Another notable difference between the high schools was the rationale for shifting the school schedule. The principal and teachers at the HPS suggested the shift in the schedule was in an effort to increase instructional time in order to address the needs of students who were not meeting academic expectations. However, at the MPS, the principal and teachers suggested the shift in the schedule was in an effort to increase both instructional time and rigor for all students.

Supervision and Accountability

Several themes emerged within the supervision and accountability construct in both the principal interviews and focus-group interviews. Within this construct, discussions centered around three primary themes: results accountability, process accountability, and job roles and functions. Results accountability was characterized by

evidence of felt accountability to measurable results related to the goals. Process accountability was characterized by evidence of structures put in place to ensure processes were followed. Three categories within the job roles and functions theme emerged: goal setting, progress monitoring and reporting, and analyzing data. Goal setting was characterized by individuals' roles in the processes established to develop goals at multiple levels, as well as subsequent processes put in place to share those goals. Progress monitoring and reporting was characterized as time spent, or processes established to, monitor or report out on progress toward established goals. Analyzing data was characterized by additional time spent in analyzing data for a variety of purposes. Table 5.2 shows the themes and categories that emerged within the supervision and accountability construct.

Table 5.2

Supervision and Accountability: Themes and Categories

Themes	**Categories**
Results Accountability	
Process Accountability	
Job Roles and Functions	Goal Setting
	Progress Monitoring and Reporting
	Analyzing Data

The themes represent the combined perceptions of the principal and teachers and paint the picture of the supervision and accountability construct across all three high schools.

Results Accountability

I asked participants to discuss how their roles and responsibilities had changed since the enactment of Senate Bill 1. In all three high schools, both teachers and principals noted that they felt the policy made them more accountable for results than they were previously. The principal at the HPS noted he felt a strong degree of accountability to the district. He explained, "The [district is] not going to be happy if the things we've done don't get us to our overall goal of reaching proficiency as a school as a whole." Likewise, the MPS principal felt similar. He said that this new accountability had "forced [him] out of [his] office and into the hallways and classrooms". He explained that he had to monitor more because "the first guy that gets fired [is] the principal." Furthermore, all three principals suggested that this same results accountability was passed on to the teachers. The principal at the HPS stated:

> If the individual teachers had set goals that wouldn't get us to a level of proficiency for the school at the end of the year, then I would end up addressing that with those individual departments.

This same principal further explained that, "we're not going to be able to get there if we don't take a look at [our] numbers and try to get those up."

Evidence of this same idea could be heard in the statements of the MPS principal. As he discussed his school goals, he noted his role in "making sure teachers have their kids ready for the [state test] because we need them to score at 74 on English portion so we can get a point." In this way, he expressed his understanding that teachers were accountable to him just as he was accountable to the district. Similarly, the principal at the LPS explained how accountability was the driver of many his conversations:

> Our graduation rate here is over 90%, but at the same time our [mathematics] scores tanked. That had absolutely dominated the discussion for myself, and the superintendent, and the director of instruction, and it trickles down [to the teachers].

Teachers in all three high schools also expressed that they felt this accountability. When I asked teachers at the HPS to discuss how Senate Bill 1 had changed the expectations placed on them, one teacher said, "We [have to] get full accountability points. [That] is what the expectation is." Another teacher remarked, "We constantly try to see what we can do to increase a score in a certain area. That's what we're accountable for." Still another teacher put it more plainly, drawing similarities to manufacturing. She asserted, "We are a factory that needs to make production, or there's consequences to not meeting production." This comment was followed by another teacher's comment explaining how results accountability led to data creation. He said,

> Yeah, now you look at the numbers, and the numbers, and then you make more numbers and then you come back and look at how those numbers worked. If they didn't work, you go back and make more numbers.

These sentiments were evident in my discussions with the MPS teachers as well. One teacher explained how teachers monitored student performance because teachers are accountable for those results. She said,

> If [a student doesn't] make ACT benchmark their junior year, their senior year is full of monitoring and we keep monitoring them probably once a month until they make benchmark because that's what matters.

Comments by teachers at the LPS were no different. They too suggested results accountability had increased. One teacher suggested that teachers are more accountable for results than the students themselves:

> To me it's applying pressure to the wrong place. If I'm going to lean on my arm why do I put pressure on my leg? If the teachers are working, the kids don't have

> any pressure on them. To me it looks like accountability on teachers and accountability on administrators, but where's accountability for the kids?

Process Accountability

Participants in all three high schools made reference to structures and procedures put in place to ensure specific processes were followed. The specific structures and procedures varied, but the purpose behind them was the same across all three high schools—compliance. The principal at the HPS shared how PLCs were monitored. He said, "Our teachers meet weekly in departmentalized PLC meetings and [the administration tries] to sit in on those meetings as much as we possibly can." When unable to attend, he leveraged a record-keeping procedure whereby each PLC was required to keep minutes. He explained, "The minutes from those [PLC] meetings come to me so that I can review those to see that discussions are moving along." The principal at the MPS made reference to similar compliance structures and procedures when he said, "[School administrators] divided up the PLC and attend each one." In both high schools, the principals had enacted structures or procedures to ensure compliance to their respective PLC mandates.

Both the principal and teachers at the LPS also discussed process accountability. However, participants at this high school related process accountability primarily to instruction. That is, teachers were accountable for observable instructional practices. These practices were assumed to be, according to the principal, practices that would increase the instructional rigor within the classroom. The principal explained,

> The day-to-day, during the school day time, has become much more of a monitoring type of time. I do a lot more walkthroughs. We have instituted this a walkthrough structure where I have folks in the county office come by every week. We use the International Center for Leadership and Education [and] they

> put out a set of rubrics, one of which is for rigor in instruction. We use that to go through and we do walkthroughs every week and give feedback to teachers every week on the rigor that we're seeing.

Teachers at the LPS recognized this process, though there did not appear to be a shared understanding of the rationale behind the process. One teacher said, "All of the sudden it was like we're getting new bigger walkthroughs." Another teacher explained how these walkthroughs only served to add pressure. She stated,

> If somebody is holding something over my head and saying, "You're going to be observed and you're going to be this and that" then I think that is an added pressure that you're already adding to yourself anyway.

This same teacher later explained that she was unaware of the purpose of the rubrics, she only knew she was being observed more and more frequently.

Job Roles and Functions

Both the principal and the teachers suggested their job roles and functions had shifted as a result of the state policy. Three categories emerged in the job roles and functions theme: goal setting, progress monitoring and reporting, and analyzing data. Goal setting was only evident in interview transcriptions from participants at the HPS. Progress monitoring, and reporting on that progress, were rarely discussed apart from one another. Therefore, it made sense that these two ideas constitute one category. This category was evident in interview transcriptions from participants at both the HPS and MPS. The data analysis category was evident in interview transcriptions from participants at all three high schools. Participants suggested these job roles and functions represented either an increase in time or an additional responsibility as a result of Senate Bill 1 expectations.

Goal setting. Both the principal and teachers at the HPS suggested they felt an increase in time and responsibility related to goal setting. Just as the principal discussed teacher involvement with goal setting when I asked him to speak specifically about organizational goals, he also noted teacher involvement in goal setting when I asked him to speak about shifts in job roles and functions. As he considered additional responsibilities placed on teachers, he explained that teachers used teacher-developed benchmark assessments to make predictions about how their students would score on state assessments. These predications were then reported back to the principal and administrative team. He explained how these reports were a part of the process teachers use to set their own goals for the year. Teachers at the HPS also referenced this goal-setting process. One teacher commented on the development of goals as a new routine within the PLC structure. Another teacher recalled a statement made earlier in the discussion and noted, "Like we said, almost all our PD days are about looking at data and setting goals now." Evidence of this same high level of teacher responsibility for goal setting was not evident in conversations with the principals and teachers at the MPS and LPS.

Progress monitoring and reporting. Principals and teachers at both the HPS and MPS suggested that there was an increase in the amount of progress monitoring and reporting as a result of Senate Bill 1 implementation. One teacher at the HPS High stated that, "reporting benchmarks, constant reporting," was a new responsibility. Another teacher agreed, saying; "Now we're to the point of where I need a report beginning [at the] of the year, middle of the year, right before testing." Still another teacher remarked, "There's a constant reporting of where [we are] at in terms of test scores." This reporting

does not stop at the building level. Departments were also responsible for "[reporting] benchmarks to central office," according to another teacher. Teachers at the MPS made similar statements. One teacher noted, "We spend more time trying to figure out how we are going to measure students, how to tell they are doing better." Another teacher suggested that their teaching had not necessarily changed, but their monitoring had changed. She said, "We are still doing, teaching the same stuff the same way. The big difference is just how closely we're monitoring it." Another teacher followed up, saying,

> I don't think what we're teaching has changed. I don't think how we're teaching has changed. I think the only thing that has really changed a lot is the degree to which we measure. We measure constantly.

While teachers at both high schools discussed the increase in progress monitoring and reporting, they spoke little about the purpose behind the increase. On the other hand, both principals did discuss the purpose behind the increase in progress monitoring and reporting. The principal at the HPS explained that progress monitoring and reporting were used to make strategic shifts or to identify specific interventions. When I asked him to discuss an example of this progress monitoring, he said,

> At the end of the first trimester if our algebra 2 teachers says, "Hey, this kid's really struggling in [mathematics]." then we're going to try to find a place to change that student schedule midyear, even at the beginning of the second trimester or third trimester to get them additional support in mathematics.

At both high schools, the principals noted how progress monitoring and reporting were integral to their successful implementation of strategies.

Analyzing data. Participants at all three high schools suggested that analyzing data represented an increase in time and responsibilities as a result of the state policy. One teacher at the HPS characterized it this way,

> Yeah, now you look at the numbers, and the numbers, and then you make more numbers and then you come back and look at how those numbers worked. If they didn't work, you go back and make more numbers.

Other HPS teachers agreed. When asked specifically about how their job roles have shifted as a result of Senate Bill 1, the consensus was more time spent analyzing data. One teacher even stated, "It's more. Much more. Multiple, multiple more." These sentiments were also present in the focus-group interviews with teachers at the MPS. One teacher explained,

> We spend probably more time now in those times where we're working on just looking at data for where our students are at in relation to where we think they will sore on the ACT.

This teacher was not alone in her assertion. Another teacher followed up, saying,

> I do more data analysis because of the ACT, COMPASS, KYOTE, KOSSA, all those things have made me focus on that data more even as MAP scores, all those. I never did that before, ever. There was no need before.

The principal at the MPS also made it clear that teachers were more involved in data analysis than they were prior to Senate Bill 1, explaining, "Teachers are more involved now in analyzing our needs than the last 2 years."

Teachers at the LPS also noted the increase in time spent on analyzing data. When I asked teachers to explain how the state policy had impacted how their time was spent, one teacher said, "The three days before school started, we had training one whole day, it was RtI if I remember right, and one whole day was data." Another teacher followed this statement with her own statement about how data analysis is a practice in compliance related to teacher evaluations. She said, "I have to look at all the data in order to answer this big list of questions with boxes." Another teacher noted, "[The state policy] has brought more data analysis on all of us, because we all have to do a student

growth goal." The principal at the LPS agreed that teachers now had a different set of expectations related to data analysis. He said, "[Teachers] are called upon now to do all of the data work." The principal further explained that data analysis is one of the primary responsibilities of the PLCs. When I asked him to discuss how teachers were using time differently, he said, "The time that they would have had to spend developing lessons is, in large part, now used to drive PLCs and do the data work."

Supervision and Accountability: Differences Across Schools

Differences within the Job Roles theme were evident between the three high schools. Goal setting as an added job responsibility was only evident in interviews with the principal and teachers at the HPS. Principals and teachers at the MPS and LPS did not necessarily suggest that goals setting represented a shift in job roles and responsibilities at these high schools. Progress monitoring and reporting as an added job responsibility was evident in interviews with principals and teachers at both the HPS and MPS. Participants at these high schools made several references to the increased amount of progress monitoring and reporting taking place at these high schools, while similar comments were absent in interviews with the principal and teachers at the LPS.

While principals and teachers at all three high schools made reference to structures and routines established to ensure compliance to specific processes, there was a notable difference related to which processes individuals felt most accountable. Teachers at the HPS and MPS noted an increased accountability to the PLC process within their high schools, while the teachers at the LPS noted an increased accountability to specific instructional practices within their classrooms. Comments from principals and teachers

at the HPS and MPS did not necessarily suggest that monitoring specific classroom practices represented a new job function or an increase in time at these high schools.

Communication

Throughout both the principal interviews and teacher focus-group interviews, two themes emerged within the communication construct. Principals at all three high schools discussed vertical communications, while principals and teachers at both the HPS and MPS discussed horizontal communications. Vertical communication is concerned with communication moving from one level of the organization to another level of the organization. Horizontal communications is concerned with communication moving across a single level within an organization. Three categories emerged within the vertical communication theme, and two categories emerged within the horizontal communications theme. The following categories emerged within the vertical communications theme: systems and structures, suggestions for improvement, and performance reporting. Structures or systems is concerned with how communication moves through the school, while the other two themes refer to the type of communication that move through the school. Suggestions for improvement is communication concerned with improving outcomes, while performance reporting refers to communication concerning performance outcomes. Within the horizontal communications theme, two categories emerged: intradepartmental communication and interdepartmental communication. Intradepartmental communication is concerned with communication flowing within a specific department, while interdepartmental communication is concerned with communication flowing between departments. Table 5.3 shows the themes and categories that emerged within the communication construct. The themes

represent the combined perceptions of the principals and teachers, and paint the picture of the communication construct across all three high schools.

Table 5.3

Communication: Themes and Categories

Themes	Categories
Vertical Communications	Systems and Structures
	Suggestions for Improvement
	Performance Reporting
Horizontal Communications	Intradepartmental
	Interdepartmental

Vertical Communication

Principals at all three high schools discussed vertical communications processes related to implementation of the state policy. Within this theme, three categories emerged: systems and structures, suggestions for improvement, and performance reporting. Structures or systems refers to the way in which communication within the school or district moves from one level of the organization to another level of the organization. The other two themes refer to the type of communication moving from one level of the organization to another level of the organization. Suggestions for improvement is characterized by communication including suggestions for how the school might improve outcomes, or course correct, moving from one level of the organization to another level of the organization. Performance reporting is characterized by communication that provides reports on performance from one level of the organization to another level of the organization. Both the structures and systems

category and the suggestions for improvement category were evident primarily in interview transcription data from principals and teachers at the HPS and MPS. The performance reporting category was evident in interview transcription data from principals and teachers at all three high schools.

Systems and structures. Principals at both the HPS and MPS made reference to specific systems and structures used to move communications from one level of the organization to another level of the organization. These systems and structures were formal in that they were guided by protocol and set by design, in part, for the purpose of communicating. Participants at both high schools noted specifically the use of PLCs as a vertical communication structure. The principal at the HPS said,

> Currently our teachers meet weekly in departmentalize PLC meetings and we try to sit in on those meetings as much as we possibly can. Sometimes it's me, sometimes it's one of the other administrators, so then we can report back to the administration group.

Because the principal, or someone from the administrative team, participated in the meeting, information could be passed upward and downward in the high school. The principal further explained that this is not an isolated structure; rather, there is a system in place to ensure vertical communication occurs across the school.

> [The members of the administrative team] individually have adopted one of the PLCs if you will, so I spend more time with one PLC than I do with the others. So does each of the administrative team, they are mostly a member of one particular PLC but we will visit any and all PLCs as we can and time allows and all that.

In this way, teachers at the HPS have access to communication from the administrative team. Likewise, the administrative team has access to communication from a large portion of teachers.

The principal at the MPS also noted the use of PLCs for vertical communications. He explained how communication moves from the leadership team to the teachers within through the PLC structure. He said,

> As the [school leadership team] members go back and leave their PLCs, they have a better understanding of maybe a better way of communicating to the members of their department how it all fits together as compared to me standing in front of the staff and telling them how it all fits together. If we can do the work through PLCs or move information through PLCs, that's what we do.

This principal further explained the structural components of the PLC that the administrative team uses to communicate downward in the organization: "PLC agendas are created by a [school leadership team] member, by the department chair." These agendas are a way for the administrative team to pass information about what is most important to the organization down to the teachers.

Suggestions for improvement. While communication took place through PLC structures, principals at both the HPS and MPS specifically referenced certain types of communication—specifically communication that provides suggestions for improvement from one level of the organization to another level of the organization. The principal at the HPS noted,

> Some of them take it upon themselves to come directly to me or to one of the other administrators and say, "This is not working." We get that more often than we get, "This is working great. We want to do more of this." If it's not broke don't fix it. They don't come to us with a complaint if it seems to be working.

He also explained how these suggestions for improvement took place vertically both formally and informally. He mentioned a formal structure when he said, "Feedback to the administrative team has happened at faculty meetings." The principal later made reference to additional formal structures when he said,

> We give them opportunities through Plus/Deltas is what the district will call them. When we'll have meetings we've not done as much of that this year as we've done the last couple of years but they have had some opportunity to address things that are going well.

In another statement, the principal made reference to informal structures through which suggestions for improvement were given. He said, "Teachers are doing a lot and they're bringing us ideas and we are trying to determine how to best implement the ideas that the teachers are bringing us." He explained that these conversations often happen in hallways and in the teachers' lounge. The principal said that this type of communication had increased as a result of Senate Bill 1 implementation when he said,

> Feedback has probably greatly increased. That time to do some of that data analysis and some of that discussion about what are we going to do with this group of students that have not performed up to the proficient level—whether that be me with other teachers, or me with other administrative staff.

The principal at the MPS also stated that suggestions for improvement from one level of the organization to another level of the organization had increased. He explained that, much like the leadership team of the HPS, the MPS leadership team also used PLCs to move suggestions for improvement upward and downward. He said, "We now do a needs analysis, where we sit down in [the school leadership team]. Then we say, 'Go to your PLCs. What is it that you wanted? What areas do you all need help with?" This principal later suggested that vertical communication related to suggestions for improvement was a crucial part of the school's effectiveness. He explained,

> Where there are needs, we make sure we get feedback on how to make things better. We work closely with the PLCs, having those discussions, getting all our staff to see where we are and how we can make improvements and getting their ideas. That has greatly increased, and I don't think we could do what we do without that kind of feedback.

While evidence of this this type of communication was clear in interviews with principals at both the HPS and MPS, there was little evidence of this same type of communication in interviews with participants at the LPS.

Performance reporting. Principals at all three high schools made reference to communication that provides reports on performance from one level of the organization to another level of the organization. Principals at both the HPS and MPS stated that they received communication from teachers that then allowed them to communicate performance to the district office—performance-reporting moving up the organization. At both high schools, this performance reporting was primarily related to student achievement outcomes. The principal at the HPS said, "[Teachers] just let me know how we're progressing, what number of students they feel like now are going to be able to reach benchmark." Teachers at the HPS agreed. One teacher recounted, ". . . I need a report [at the] beginning of the year, middle of the year, [and] right before testing. Who's testing, who do I think is going to be passing these tests." Another teacher stated that, "reporting benchmarks" represented a new responsibility for all of them. All of this information was both used by the principal and passed on to central office. The principal at the MPS suggested a similar process. He recalled, "The updates I give to the district come from what the teachers tell me. They're looking through the data they have and reporting back to me, so what I tell the superintendent comes from [the teachers] and me."

The principal at the LPS, however, primarily made reference to communication to teachers from the school administrative team. That is, performance reporting moving down the organization. The category of communication (i.e., performance reporting) was

evident in interview transcription data from principals and teachers at all three high schools, but the directional flow of information was not. The principal at the LPS said, "We give our teachers data each week, if we can," and, "we use [rubrics] to go through and we do walkthroughs every week and give feedback to teachers every week on the rigor that we're seeing." Further, the principal stated, "On my weekly memo to the faculty, when I do a weekly preview I chart the progress that we're seeing in terms of the level or rigor that we're seeing school wide." In this way, performance reporting moved downward in the organization. There was little evidence in interview transcription data from the principal and teachers at the LPS that performance reporting also moved upward in the organization.

Horizontal Communication

Participants at both the HPS and MPS discussed horizontal communications processes related to implementation of the state policy. Within this theme, two categories emerged: intradepartmental communication and interdepartmental communication. Intradepartmental communication refers to communication flowing within a specific department and was evident in interview transcription data from principals and teachers at both the HPS and MPS. Interdepartmental communication refers to information flowing between departments and was evident in interview transcription data from the principal and teachers at the MPS. Moreover, while the principal and teachers discussed interdepartmental communication at the MPS, they discussed intradepartmental communication much more. Both categories of communication—intradepartmental at both the HPS and MPS, and interdepartmental at the MPS—were discussed in the context of formal structures. At the LPS, the principal and teachers discussed horizontal

communication passingly and only in the context of informal interactions between peers. That is, participants did not share evidence of formal structures nor a specific focus on horizontal communications within the high school. Rather, these participants made general statements about having discussions with their peers in the hallways or after school.

Intradepartmental communication. Principals and teachers at both the HPS and MPS indicated there was an increase in intradepartmental communication in their high schools as a result of implementing state policy. Further, participants at both high schools suggested they leveraged formal structures to foster this communication. The principal at the HPS noted, "Currently our teachers meet weekly in departmentalize PLC meetings." He later clarified terminology, saying, "We've just gone from calling [department meetings] a department meeting to calling it a PLC meeting." The departments, or PLCs, "come together hopefully every week, to address concerns of that particular department," he said. Teachers at the HPS echoed these statements. One teacher said, "Well, now with the PLC's, and us having common planning, that's made a big difference. I see more [of my colleagues] than I ever have." In response, another teacher added, "I spend a lot of time with my peers." Another teacher explained how department meetings, or PLCs, were used to collaborate on problem solving interventions for students. She said,

> If we have a problem child in our class, that's when we all sit around and say, "Look, I've done this and this and this. Can anybody help me with that solution? Help me reach this child." That's part of what we do in our PLCs

Teachers at the MPS also stated that PLCs were a form of intradepartmental communication, saying, "We have PLCs [where] people come to the table and say, 'My

kids are not getting this concept, how do you teach it?'" Another teacher Medium explained that PLCs were a structure for intradepartmental communication around data and performance. He said, "Internally, I mean I feel like [data analysis and progress monitoring is] probably 70% of what we do departmentally." Another teacher followed, explaining, "We spend a lot more purposeful time working on certain things together." The principal at the MPS explained how intradepartmental communication was consolidated and passed upward in the organization. He said "School-wide strategies can come from [the school leadership team] but [the school leadership team] comes from the PLCs, which is everybody." The principal explained that this intradepartmental communication was the foundation for "joint decisions" which has been "one of [the school's] biggest focuses in the last couple of years."

Interdepartmental communication. Teachers at the MPS made reference to interdepartmental communication, though this category of communication was less evident in interview transcription data from principals and teachers than intradepartmental communication. Further, intradepartmental communication was consolidated through a structure whereby department chairs communicated with each other after first communicating within their department. For example, one teacher explained, "[The master schedule] came through the department chairs working with their departments." The principal at the MPS further eluded to this structure when he explained the school's emphasis on shared decision-making. He said, "We're [implementing shared decision-making] through [the school leadership team]." The school leadership team is comprised of department chairs. Thus, while the school leadership team may represent another layer within the organization it functions to allow

for horizontal intradepartmental communication as well as vertical communication with the school administrative team.

Communication: Differences Across Schools

Differences within the communication theme between the three high schools were evident in interview transcription data from the principals and teachers. Vertical communication, as a theme, was primarily evident only in interviews with principals. This theme was not evident in focus-group interviews with teacher at all three high schools. Also, at both the HPS and MPS, evidence in interview transcription data from principals and teachers of vertical communication was both bottom up and top down. However, at the LPS, evidence in interview transcription data from the principal and teachers of vertical communication was primarily top down. That is, communication moving from administrators to teachers. There were also differences between the three high schools within the horizontal communication theme. According to the principals and teachers at the HPS and MPS, horizontal communication occurred through formal structures. However, horizontal communications was only minimally evident in interview transcription data from the principal and teachers at the LPS. Additionally, the LPS participants indicated that horizontal communications occurred through informal structures.

There were also differences between the three high schools within categories within each theme. At both the HPS and MPS there was evidence in interview transcription data from principals and teachers of formal systems and structures through which vertical communication occurred. These structures were less evident in interview transcription data from the principal and teachers at the LPS. There was also little

evidence of the suggestions for improvement category in interview transcription data from the principal and teachers at the LPS. Further, the suggestions for improvement category was only evident in interviews with the principals at all three high schools. However, the performance reporting category was evident in interview transcription data from principals in all three high schools. This same category was evident in focus-group interview transcription data teachers at the HPS and MPS. Additionally, there was less evidence of interdepartmental communication than there was of intradepartmental communication. Finally, neither the HPS nor LPS participants discussed interdepartmental communication. Rather, this category was only evident in interview transcription data from principals and teachers at the MPS.

Summary

Analyses of commentary generated through individual interviews with principals and focus-group interviews with teachers ascertained principal and teacher perceptions related to the way in which organizational structural characteristics of the schools supported implementation of Senate Bill 1. This analysis suggested there was a difference in organizational structural characteristics between the three high schools. The principal and teachers at HPS indicated that they leveraged time as a resource and ensured the use of time was aligned with the organizational goals. Further, organizational goals were systemic across this high school. Additionally, participants at both the HPS and MPS stated that they made specific structural changes and shifts—namely the school schedule. There were also differences in the way in which teachers and principals at all three high schools perceived their job roles had shifted. Principals and teachers at both the HPS and MPS suggested they experienced an increase in the

amount of time they spent monitoring and reporting on progress. Finally, principals and teachers at both the HPS and MPS indicated that vertical communication was bottom up and top down and horizontal communication often occurred through formal channels. The principal and teachers at the LPS suggested that vertical communication was mostly top down and horizontal communication often occurred through informal channels. Chapter six presents conclusions based on principal questionnaire results presented in Chapter four and principal interview and teacher focus-group interview findings presented here. Chapter six closes with implications of this study about organizational structural supports for policy implementation in Kentucky and recommendations for further research and practical application

CHAPTER 6

DISCUSSION AND RECOMMENDATIONS

Prior to conducting this study, I anticipated addressing each research question somewhat independent of each other. However, it became apparent that doing so would be disingenuous to the complexity of these questions. That is, the answer to a *what* question is very different from the answer to a *how* question. This study asked how a policy is implemented and how structures impact implementation. When applying an organizational perspective of policy implementation to the context of Kentucky's Senate Bill 1 policy, I realized these two questions may in fact be asking the same thing.

Given that school improvement plans addressing new standards, new assessments, and reducing remediation were required by regulation at the time this study was conducted, it was not surprising that schools selected strategies from each of the focus areas. It was equally as unsurprising that schools selected many of the same strategies. In reality, the state defined the policy through the suggested implementation strategies. Schools did not offer additional strategies, they simply selected the ones they were offered. However, when strategies are also policy, activities associated with implementation should be considered from some other vantage point (Hill & Lynn, 2009; O'Toole, 1995, 2000). In the case of this study, that other vantage point was a street-level organizational perspective—specifically, organizational structure. That is, the street-level bureaucracy variables that include the activities and perceptions of principle implementers were considered. It was this consideration that showed clearly the interactions between organizational structural shifts and implementation. For this study, how schools implement and how structures support implementation are actually the same

question. Thus, the discussion should be framed in this way: Kentucky high schools implement Senate Bill 1 by making organizational structural shifts or by leveraging specific organizational structural characteristics. The discussion that follows is organized around the organizational structural shifts and specific organizational structural characteristics the three selected high schools used to implement Senate Bill 1 as specified.

Organizational Goals

The three high schools compared in this study showed similarities in structural characteristics related to the organizational goals—specifically, policy alignment, goal alignment, and goal clarity. However, there were differences between the three high schools in a few keys areas. It is these differences that highlight the way in which organizational goals are leveraged for effective implementation. Goals, both stated and real, are concerned with the long-term direction of an organization. All three high schools showed evidence of alignment between these real and stated goals; however, the HPS and MPS leveraged the resource of time in order to implementation their organizational goals. There was also evidence at the HPS that goals were developed and implemented systemically. This intentional resource alignment and systemic approach may have helped the principal and teachers at the HPS to achieve their goals by allowing for greater efficiency (Bolman & Deal, 2008).

Time

Both the principal and teachers at the HPS and MPS noted their school's commitment to repurposing time. When organizations allocate resources, they are making choices about what is important and what is not important (Bolman & Deal,

2008). Sometimes those choices are about what is most urgent. Nevertheless, when an organization chooses to address that which is most urgent, they are suggesting urgency is also most important. The principal and teachers at the HPS and MPS noted a proximal connection between the allocation of time to goals when they noted the direct connection between the allocation of time to strategies. Thus, they created the conditions upon which they could realize their goals in a way that the other high schools did not. When they noted that time allocated for implementing their strategies was not additional time, but repurposed time, it revealed an understanding of the economy of time—the idea that time allocated to one activity must come from time allocated to another activity. This requires choice and choice suggests intent and commitment. This level of intent and commitment was something not present at the LPS. Given the evidence of policy alignment, goal alignment, and goal clarity at all three schools, there was some intent and commitment to organizational goals. However, data gathered at all three high schools suggested that the principal and teachers at the HPS and MPS showed a greater commitment to their goals, than did the principals and teachers at the LPS. Better stated, the principal and teachers at the HPS and MPS recognized that if a goal is to be achieved, there is an economy of time, and it must be considered a resource that can be consolidated to support organizational goals.

Systemic

The principal and teachers at the HPS specifically noted a systemic approach to school goals; that is, goals were developed and operationalized throughout the school. From an organizational structural framework, high schools are comprised of component units functioning in relation to one another. They are systems, and systems can be

complex. Because implementation of policies, goals, or strategies takes place in these complex systems, implementers must recognize and account for this complexity through regulation, control, and communication processes (Wiener, 1961). Regulation and control take place through vertical or horizontal communication processes, depending on the goals of the organization and the environment in which the organization operates. However, as goals are achieved, redefined, clarified, or altogether changed, the structure must also change. In this way, the structure can never truly be fixed (Mintzberg, 1979). At the HPS, the principal and teachers seemed to understand that component units of the school all contributed to the overall school goals. Students set goals, teachers set goals, and departments set goals—each one tied to the overall goals of the school (student to teacher, teacher to department, department to school). In this way, the principal and teachers at the HPS showed a concern for structural intent based on systems thinking that accounts for circular or mutually causative relationships—a concept fundamental to solving problems associated with complex processes and systems (Senge, 1990).

Structural Flexibilities and Adaptations

Structures support effective implementation when they are adapted to minimize conflict and confusion which can lead to inefficiency and poor performance (Keedy & McDonald, 2007). Principals and teachers at both the HPS and MPS showed evidence of this adaptation. These schools made shifts in their school schedules in their efforts to implement Senate Bill 1 requirements. The principal and teachers at the LPS suggested their structure had remained static in spite of Senate Bill 1 implementation. This structural rigidity may have failed to minimize conflict and confusion, which may have led to inefficiency and poor performance at this high school. Thus, one conclusion may

be that the more successful schools in the study adapted to external change forces (Fullan, 2009). The second conclusion may be *which* structure they shifted—they specifically adapted their schedule. The difference between this structural shift at both the HPS and MPS was the rationale. Personnel at the HPS shifted the schedule in an effort to increase instructional time for students who were not meeting academic expectations, whereas those at the MPS shifted the schedule in an effort to increase both instructional time and rigor for all students.

Supervision and Accountability

Supervision and accountability is a function of bureaucratic structures and was explored in this study. A bureaucratic structure refers to the fixed processes by which official duties are discharged, distributed, and monitored within an organization (Weber, 2000). It is concerned with the allocation and coordination of work (Bolman & Deal, 2008), and rules and regulations define duties and provide continuity utilizing a division of labor and a hierarchy of authority (Weber, 2000). Bureaucratic structures are organized according to the type of work required and the external environmental circumstances influencing them (Bolman & Deal, 2008; Mintzberg, 1979). Simple structures accomplish coordination and control through direct supervision whereas machine bureaucracies do so through mangers, support staff, and standardized procedures. Professional bureaucracies utilize normative cultural-building with a decentralized decision-making structure, while divisional forms and adhocracies function with relative autonomy and in response to turbulent and changing environments (Bolman & Deal, 2008; Mintzberg, 1979). Inherent in each are virtues and liabilities. A structure that is too loose has little continuity and lacks the stability to weather complex scenarios.

A structure that is too tight can retard the progress of the organization and motivates members to find ways to work around inflexibility (Bolman & Deal, 2008), also retarding progress and strategic problem solving.

Evidence of supervision and accountability in the three high schools compared in this study suggested possible differences in the bureaucratic structures of the schools. Consider process accountability. While there was evidence of process accountability in all three high schools, there was a uniqueness to the process accountability found at the LPS. At both the HPS and MPS, process accountability was focused on routines outside the core job functions of the classroom teacher. At the LPS, process accountability was directly connected to the teachers' core job functions, and control and coordination was accomplished through direct supervision of the teacher by the principal or administrative team. Conversely, at both the HPS and MPS, this control and coordination was accomplished through leadership monitoring of *processes* designed to produce control and coordination. Whether the resulting structure at these two high schools were too tight or too loose is beyond the scope of this study. However, it appears as though the structure of the LPS was more tight than the that of the other two high schools. This may indicate that successful implementation of Senate Bill 1 is supported by a structure that looks less like a simple structure with tight control and coordination, and more like a structure with more loose controls and coordination (Bolman & Deal, 2008; Mintzberg, 1979).

In addition to differences in process accountability, there were also differences in the way in which shifts in job roles and functions supported the implementation of Senate Bill 1 requirements. These differences may further expose the differences in bureaucratic

structure across the three high schools. Job roles and functions are the official duties that are discharged, distributed, and monitored within an organization (Weber, 2000). At the HPS, it was everyone's job to be concerned with meeting the school goals. Although, not everyone was concerned with meeting the goals, it was everyone's officially discharged duty to help the school meet the goals. Teachers were responsible for establishing goals that would, in turn, help the school to meet the overall goals. The principal did not give teachers specific goals; rather, teachers were expected to develop goals based on their own expertise. This may be evidence of decentralized decision-making protocols found in a professional bureaucracies or the professional autonomy often found in divisional forms and adhocracies (Bolman & Deal, 2008; Mintzberg, 1979).

Communication and Power

Processing information both vertically and horizontally in a school can be difficult, given that schools often function as both loosely-coupled and bureaucratic structures or layered hierarchies (Bolman & Deal, 2008; Lunenburg & Ornstein, 1991; Weick, 1976). In this study, both vertical and horizontal communications were explored. At both the HPS and MPS, evidence of vertical communication was both bottom up and top down; whereas, at the LPS, evidence of vertical communication was mostly top down (i.e., the principal communicating directives to the teachers). Vertical communication is accomplished through processes that suggest a chain of command. While this tends to be efficient when information is moving downward through the organization, it tends to be less efficient when moving upward through the organization. The principal and teachers at the LPS provided evidence of effective downward communication but they did not provide evidence of effective upward communication. This reflects the centralized

decision making structure of hierarchies (Bolman & Deal, 2008). Information was controlled by the one with positional power—in this case the principal.

Position power is the power of legitimacy (Cartwright & Zander, 1968). This power is connected with an office or assignment situated within the hierarchy of the organization in such a way as to provide the office holder control over resources, rewards or punishments, information, or the environment. Control over compensation, advancement, assignments or reassignments are all components of this type of power. Control over information provides individuals with the ability to interpret and drive the agenda of the organization, while ecological control is the power to impact the physical and social working conditions of an organization. It is this power that allows individuals to coordinate or confuse systems in such a way as to promote one goal over another (Bolman & Deal, 2008).

However, power within an organization does not reside only at the top of the structure. In fact, formal authority rarely provides enough power necessary to meet organizational goals resulting in a power gap (Hatch, M. J., & Cunliffe, A. L., 2006). Therefore, while position power is one source of power, power may come from a collection of sources often far more nebulous than the concrete confines of position. The result is that power is an intricate web of interdependent forces acting upon each other. When power is highly concentrated in certain areas of this web, the system is known as an overbound system and is often tightly regulated. If, however, the system is diffuse and without stringent regulation, the system is known as an underbound system (Bolman & Deal, 2008). Bottom up communication can serve to diffuse the power. In doing so, the principals at the HPS and MPS may afford themselves the opportunity to check and

balance any false assumptions they may have had prior to making strategic decisions. The strategic effectiveness of a system is dependent upon the quality of the assumptions upon which key decisions at the top are made. In overbound systems, the quality of those assumptions can be suspect because of the lack of information supporting them (Bolman & Deal, 2008; Lunenburg & Ornstein, 1991; Weick, 1976). The principals at both the HPS and MPS may have buffered themselves against poor decisions by creating systems and structures that allowed communication to move upward (e.g., through students, teachers, and departments setting goals), thereby diffusing the power and providing critical information about progress and effectiveness to key decision-makers.

Recommendations for Practice

As Kentucky schools and districts move forward in their local Senate Bill 1 implementation efforts, understanding the conditions most supportive of successful implementation is beneficial. In this case study involving three high schools, the more successful policy implementers were those who adapted their structure to better accomplish their goals, recognized the economy of time and how to leverage it as a resource, and created structures that more closely resembled machine or professional bureaucracies. Kentucky schools, therefore, should consider how time is allocated in their system and the degree to which the use of that time is focused on accomplishing policy goals. Additionally, Kentucky schools should consider the economy of time; that is, when time is allocated to accomplish one goal, it is taken away from accomplishing another goal. Schools must, therefore, make clear choices about how this precious and non-recurring resource is used. More importantly, principals and teachers must recognize that their choices reflect what they most value. Finally, Kentucky schools should

consider their bureaucratic structures. They should consider if their structure represents a simple structure, a machine bureaucracy, or a professional bureaucracy. The more successful implementers of state policy in this study had bureaucratic structures that did not reflect simple structures. Rather, they leveraged standardized procedures and decentralized decision-making protocols.

As states engage in policy reform movements centered on college readiness for all high school graduates, they must also consider how these policies are implemented at the local level. Policymakers and governing agencies must recognize that policies do not necessarily yield beneficial practices nor intended results (Calista, 1994; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Love, 2004). Thus, policy reform should be accompanied by implementation support. Districts and schools must recognize that policy implementation is not only about implementing prescribed strategies or interventions but also about creating the system conditions for success.

Policymakers and state agencies should consider the institutional and street-level bureaucracy variables associated with policy implementation. Because policy implementation takes place in complex systems and non-linear causal relationships in such systems require knowledge of their processes—the foundation of systems thinking (Wiener, 1961)—an organizational perspective of implementation may be beneficial. Considering implementation from such a perspective promotes a focus on the mutually causative relationships fundamental to solving complex problems associated with system processes (Senge, 1990). Specifically, how organizational structures support implementation. While principals and teachers at all three high schools in this study suggested they implemented many of the same strategies, their schools had different

results. Successful implementation of the policy thus required more than the selection of strategies or interventions. Rather, successful implementation relied, at least in part, on having the appropriate structures to support implementation.

While the list of interventions and strategies for meeting the Senate Bill 1 policy requirements in Kentucky were plentiful, there should be a greater effort to supply schools with the evaluative tools that might help them consider the degree to which their school has the appropriate conditions for successful implementation. States, in general, should consider developing these resources as agnostic to a specific policy. That is, determining specific structural shifts required for successful implementation may be less beneficial than training system leaders to consider how to evaluate what structural shifts need to be made.

Recommendations for Future Research

As state systems of education continue to push on the metric of increased college readiness for all students, continued research into effective implementation strategies is critical. The effectiveness of policy reform is dependent upon the quality of the policy implementation. The body of research regarding the core components of effective implementation—at the state, district, or local level—should be commensurate with the body of research regarding the core components of effective interventions or strategies. Furthermore, widely accepted methodologies and measures of implementation processes and effectiveness are lacking.

This study was a comparative case study using a most similar systems design. While the selected high schools were the most similar out of the data gathered through the researcher-created principal questionnaire, there may be other high schools across the

state with far more similarities. With a greater response rate, researchers would have a larger pool of potential high schools from which to match similar systems. Doing so could potentially yield better high schools for comparison as more similarities between schools can better control for differences impacting each schools' college-readiness measures. In addition, this study used a questionnaire that provided enough data regarding selected strategies for site selection but did not provide data on the fidelity of implementation of each strategy. Future researchers may consider controlling for implementation fidelity when selecting high schools for comparison. Furthermore, this study was bound by the perceptions of principal implementers and did not account for additional data sources that may have provided insight into each school's structural characteristics. Future researchers may consider including document review and observation as a part of similar studies. These additional data sources could be used to triangulate the data yielded from interviews and focus groups. This may provide a more robust picture of each high school and greater clarity on the contrasts between them.

The study yielded structural characteristic differences across the three selected high schools, but how those structures were created was not explored. This is an important recommendation. As states consider how to support policy implementation at the local level, and if those supports should include recommendations for aligning organizational structures to policy goals, then the process for ensuring organizational structures are aligned to policy goals should be more fully understood. It is not enough to better understand *which* structures support implementation, or even *how* structures support implementation, if we do not understand how to evaluate and shift structures to ensure they support implementation.

Lessons Learned

As a doctoral student at the University of Kentucky and an educational practitioner, I have had the opportunity to explore both the theoretical underpinnings of organizational change, leadership, and educational policy, and the practical application of these theories in the field of education. When I began this case study, I was engaged in both policy development and implementation at the state level. As the state adopted the sweeping reforms of Senate Bill 1, as well as the suite of supporting regulations, my role was to ensure districts and schools implemented them with fidelity. As a part of my professional duties, I began developing a capacity assessment for districts and schools to use in their implementation efforts. A fundamental component of that tool was a section devoted to district understanding of their structural capacity for implementation. I committed at the onset of this study that my influence over the resources, communications, and guidance used to support local implementation would not influence my interpretation of the data. Shortly after starting this study, I changed jobs. My role switched from a key support for policy implementation to a key support for leadership development. I again committed that my influence over the resources, communications, and guidance used to support leadership development would likewise not influence my interpretation of the data. While I am supremely confident that my job roles did not influence my interpretation of the data, the data did influence the way in which I think about my job.

I now have the pleasure of working with schools, districts, and state departments of education across the United States of America. I have learned that, for the most part, we as a profession are wonderfully adept at supporting technical change and remarkably

inept at supporting adaptive change. I have been engaged in the state-level collection of outcome data and have measured compliance. I have tracked outputs and provided step-by-step instructions on record keeping. At times, I have even had the good fortune of providing change theory to a school, district, or state level practitioner. But I am only now beginning to engage in the work of transformation. Through this long process of literature review, study design, data collection, and data analysis, I have to come to more fully understand that implementation (or change or reform) are perhaps far more a function of the characteristics of the organization and far less a function of the specific strategies put in place. Too often, we provide support for specific strategies but little support for organizational change.

Conclusion

This study was a comparative case study using a most similar systems design. The study was designed to explore the interactions between implementation strategies, organizational structural characteristics, and performance outcomes using multiple data collection strategies. The reform policies within Kentucky Senate Bill 1, enacted in 2009 by Kentucky's General Assembly, required (a) the state adoption of revised K-12 content standards aligned with postsecondary expectations; (b) the development of a unified plan to reduce college remediation, including interventions and acceleration opportunities for students; and (c) the development of a new system of assessments, including end of course, ACT Plan and ACT, and program reviews. The goal of the policy was to increase the number of students who are college ready by 50% between the years 2010 and 2014.

The study found that schools are using many of the same strategies and interventions to ensure they meet the policy mandates. However, there may be

organizational structural characteristics that support implementation at the school level that are not addressed in policy implementation supports. Assessment and development of these structural characteristics are not necessarily supported by the state. Nor are these structural characteristics mandates of the policy itself. Schools should consider the alignment of their resources, specifically time, when considering their implementation efforts. The use of time should be aligned to their goals and schools would be well-served to recognize there is an economy of time. In addition, schools should asses the degree to which their bureaucratic structure is more simple, more machine, or more professional when considering whether or not they have appropriate structural conditions for implementation. Schools should consider the benefits of less tight bureaucratic controls when faced with highly complex environmental pressures such as sweeping reform policies.

Appendix A

IRB Approval

Office of Research Integrity
IRB, IACUC, RDRC
315 Kinkead Hall
Lexington, KY 40506-0057
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www.research.uky.edu/ori/

Initial Review

Approval Ends
July 8, 2015

IRB Number
14-0417-P4S

TO: Todd Baldwin
Education Admin & Supervision
111 Dickey Hall
0017
PI phone #: (859) 200-6372

FROM: Chairperson/Vice Chairperson
Non-medical Institutional Review Board (IRB)

SUBJECT: Approval of Protocol Number 14-0417-P4S

DATE: July 10, 2014

On July 9, 2014, the Non-medical Institutional Review Board approved your protocol entitled:

Implementing Kentucky's College Readiness Agenda: An Organizational Perspective on Policy Implementation

Approval is effective from July 9, 2014 until July 8, 2015 and extends to any consent/assent form, cover letter, and/or phone script. If applicable, attached is the IRB approved consent/assent document(s) to be used when enrolling subjects. **[Note, subjects can only be enrolled using consent/assent forms which have a valid "IRB Approval" stamp unless special waiver has been obtained from the IRB.]** Prior to the end of this period, you will be sent a Continuation Review Report Form which must be completed and returned to the Office of Research Integrity so that the protocol can be reviewed and approved for the next period.

In implementing the research activities, you are responsible for complying with IRB decisions, conditions and requirements. The research procedures should be implemented as approved in the IRB protocol. It is the principal investigators responsibility to ensure any changes planned for the research are submitted for review and approval by the IRB prior to implementation. Protocol changes made without prior IRB approval to eliminate apparent hazards to the subject(s) should be reported in writing immediately to the IRB. Furthermore, discontinuing a study or completion of a study is considered a change in the protocol's status and therefore the IRB should be promptly notified in writing.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's IRB Survival Handbook web page [http://www.research.uky.edu/ori/IRB-Survival-Handbook.html#PIresponsibilities]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [http://www.research.uky.edu/ori]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

N. Van Tubergen, PhD /ah
Chairperson/Vice Chairperson

Appendix B

Teacher Recruitment Letter

Hello,

My name is Todd Baldwin, and I am a doctoral candidate conducting dissertation research under the supervision of Dr. Tricia Browne-Ferrigno, Professor in the Department of Educational Leadership Studies at the University of Kentucky. This study has been reviewed and approved by the University Of Kentucky Institutional Review Board.

You are invited to participate in a research study focused on exploring implementation of school-level strategies for increasing college-readiness rates. You are invited because you currently serve as a teacher in a Kentucky public high school meeting specific college-readiness criteria for selection in this study. If you volunteer to take part in this study, you may be one of eighteen teachers to do so.

Participation in this study involves a focus group discussion on school structures supporting the implementation of the strategies for increasing college-readiness rates as they are implemented at your school. The focus group will include other teachers from your school and will take approximately 60 minutes of your time. The focus group will be conducted in a location convenient to you that assures privacy.

If you are interested in participating, please contact me via electronic mail addressed to me (todd.baldwin@education.ky.gov). I shall then send you a confirmation email that provides information concerning the location of the focus group. If you have to cancel your appointment, please email or call me at 859-200-6372.

Sincerely,

Todd Baldwin

Appendix C

Principal Recruitment Letter

Hello,

My name is Todd Baldwin, and I am a doctoral candidate conducting dissertation research under the supervision of Dr. Tricia Browne-Ferrigno, Professor in the Department of Educational Leadership Studies at the University of Kentucky. This study has been reviewed and approved by the University Of Kentucky Institutional Review Board.

You are invited to participate in a research study focused on exploring implementation of school-level strategies for increasing college-readiness rates. You are invited because you currently serve as a Principal in a Kentucky public high school meeting specific college-readiness criteria for selection in this study. If you volunteer to take part in this questionnaire, you may be one of thirty principals to do so.

Participation in this study involves the following:

- Completion of a questionnaire about strategies and interventions your school uses to ensure students meet the college-readiness metrics defined by the state accountability system.
- The researcher will analyze the data from the questionnaire to select three volunteer principals to participate in a follow up interview centered on school structures supporting the implementation of the identified strategies for increasing college readiness as they are implemented at your school. The interview will take approximately 60 minutes of your time and will be conducted at a location and time convenient to you that assures privacy.
- If chosen for the follow up interview, you will additionally be asked to identify three (3) teachers who have the highest potential to offer the greatest insight into the implementation of your school's college-readiness strategies for participation in a focus group discussion with the researcher. The researcher will then randomly select three (3) additional teachers to be asked to participate in the focus group discussion as well.

If you have any questions about participation in this research, please contact me via phone at 859-200-6372, or via electronic mail addressed to me (todd.baldwin@education.ky.gov).

Sincerely,

Todd Baldwin

Appendix D

Principal Questionnaire

Context
On March 26, 2009, Governor Steve Beshear signed Senate Bill 1 into law. This piece of legislation led to the implementation of several education initiatives impacting college readiness and degree completion in Kentucky.

As a part of these initiatives, every district in the state signed the Commonwealth Commitment to move 50% of their district's high school graduates who are not college ready between 2010 and 2015.

Kentucky Senate Bill 1 mandates three specific reforms:

- the state adoption of revised K-12 content standards aligned with postsecondary expectations – the Kentucky Core Academic Standards;
- the development of a unified plan to reduce college remediation, including interventions and acceleration opportunities for students, and;
- the development of a new system of assessments, including end of Course, ACT Plan and ACT, and program reviews.

The following questionnaire asks you to identify specific strategies and interventions your school is using to ensure students meet the college-ready metrics defined by the state accountability system. Once analyzed, these data will be used to solicit three (3) volunteer principals to participate in a one-hour interview.

School Information
Please identify the name of the school for which you are the principal and the school district in which your school is located.

1. District Name: _____
2. School Name: _____

Change Strategies and Interventions

Please identify and briefly explain specific activities/strategies within each area of focus. Please select all the strategies your school has implemented. If your school implemented a strategy/strategies not listed, please select OTHER and briefly describe the strategy in the space provided.

3. More Rigorous Standards – the Kentucky Core Academic Standards (KCAS)
   Listed below are strategies which schools may use to address the implementation of more rigorous standards for students. Please select all the strategies your school has implemented. If your school implemented a strategy/strategies not listed, please select OTHER and briefly describe the strategy.
   a. Training on the new standards
   b. Participating in the Kentucky Leadership Networks
   c. Redesigning curriculum maps
   d. Deconstructing of the standards
   e. Redesigning course syllabi
   f. Using standards-based units of study
   g. Using of differentiated instructional strategies that make instruction accessible to all students
   h. Using scaffolded instructional practices to help students develop reasoning and problem-solving strategies
   i. Using classroom discussions that promote higher-order thinking skills
   j. Using questioning techniques that promote higher-order thinking skills
   k. Using learning tasks that promote higher-order thinking skills
   l. Integrating inquiry skills into learning experiences.
   m. Clarifying and sharing with students learning intentions/targets and criteria for success
   n. OTHER (please describe)

4. Reducing Remediation – Acceleration and Interventions
   Listed below are strategies which schools may use to reduce the need for remediation for students entering college. Please select all the strategies your school has implemented. If your school implemented a strategy/strategies not listed, please select OTHER and briefly describe the strategy.
   a. Training on interventions
   b. Training on progress monitoring
   c. Increasing the number of Advanced Placement courses
   d. Allowing open enrollment for Advanced Placement courses
   e. Providing Dual Credit course options
   f. Providing Concurrent Enrollment course options
   g. Providing Early College or Middle College options
   h. Providing International Baccalaureate course options
   i. Using Extended School Services (ESS) for interventions

j. Using a Lab model for interventions (i.e. providing students direct instruction in their regular classroom and extensions or interventions in the lab classroom)
k. Providing dedicated intervention time within the regular school class schedule
l. Providing interventions during scheduled lunch times
m. Embedding High School intervention curriculum into English and Math courses
n. Pulling students out of elective courses to participate in interventions
o. Using the state-developed intervention courses/curriculum
p. Using district-developed intervention courses/curriculum
q. Using the state-developed Persistence to Graduation Tool to trigger interventions
r. Using an early warning system, other than the state-developed Persistence to Graduation Tool, to trigger interventions
s. Using the Individual Learning Plan (ILP) online tool for creating and tracking educational plans and goals for students
t. Developing graduation plans for incoming students
u. OTHER (please describe)

5. New System of Assessments – End of Course, ACT Plan and ACT, and Program Reviews
Listed below are strategies which schools may use to address the use of new systems of assessments. Please select all the strategies your school has implemented. If your school implemented a strategy/strategies not listed, please select OTHER and briefly describe the strategy.
a. Training on the classroom-level progress monitoring
b. Training on Classroom Assessment for Student Learning
c. Training on assessment literacy (i.e. knowledge and skills related to the basic principles of quality assessment practices)
d. Using universal screeners
e. Using diagnostic assessments
f. Using classroom-level progress monitoring
g. Using school-level progress monitoring
h. Reviewing student data collaboratively by teachers
i. Reviewing student data collaboratively by administrators
j. Reviewing student data collaboratively by teachers and administrators together
k. OTHER (please describe)

Appendix E

Principal Participant Consent

Informed Consent

You are invited to take part in this research study because you currently serve as a principal in a Kentucky public high school meeting specific college-readiness criteria for selection in this study. If you volunteer to take part in this study, you may be one of three principals to do so.

Researcher Conducting Study

The person in charge of this study is Todd Baldwin, a doctoral candidate conducting dissertation research at the University of Kentucky. He is being guided in this research by Dr. Tricia Browne-Ferrigno, an associate professor in the Department of Educational Leadership Studies at the University of Kentucky.

Goal of Project and Purpose of Study

State agencies need to better understand local context, barriers, and supports for implementation in order to develop policies, strategy, and state support service changes that might help to overcome reform obstacles. Therefore, the purpose of this study is to explore the interactions between implementation strategies, organizational structural characteristics, and performance outcomes. The study seeks to address two overarching research questions:

1. How is Kentucky Senate Bill 1 implemented at the high school level?
2. How do structural characteristics within high schools support implementation Kentucky Senate Bill 1?

The first research question refers to the specific change strategies and interventions schools adopted, or capitalized upon, to ensure students meet the college-ready metrics defined by the state accountability system. The second research question seeks to ascertain teacher and principal perceptions related to organizational goal clarity and agreement, clarity and agreement related to roles and responsibilities, and structural flexibility and adaptations.

Are There Reasons Why You Should Not Take Part In This Study?

You should not participate in this if you are not a principal in a public Kentucky high school selected for this study.

Where Is The Study Going To Take Place And How Long Will It Last?

The questionnaire takes approximately 20 minutes to complete and will be conducted online. The interview takes approximately 60 minutes and will be conducted at a place, date, and time convenient to the participant.

What Will You Be Asked To Do?

You will be asked to complete a questionnaire about strategies and interventions your school uses to ensure students meet the college-readiness metrics defined by the state accountability system.

The researcher will analyze the data from the questionnaire to select three volunteer principals to participate in a follow up interview centered on school structures supporting the implementation of the identified strategies for increasing college-readiness as they are implemented at your school. The interview will take approximately 60 minutes of your time and will be conducted at a location and time convenient to you that assures privacy.

If chosen for the follow up interview, you will additionally be asked to identify three (3) teachers who have the highest potential to offer the greatest insight into the implementation of your school's college-readiness strategies for participation in a focus group discussion with the researcher. The researcher will then randomly select three (3) additional teachers to be asked to participate in the focus group discussion as well.

What Are The Possible Risks And Discomforts?

To the best of our knowledge, the questions posed on the questionnaire have no more risk of harm than you would experience in everyday life.

Will You Benefit From Taking Part In This Study?

There is no guarantee that you will get any benefit from taking part in this study. However, your willingness to take part may provide insight into the understanding of policy implementation in Kentucky.

Do You Have To Take Part In The Study?

If you decide to take part in the study, it should be because you volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

If You Don't Want To Take Part In The Study, Are There Other Choices?

If you do not want to be in the study, there are no other choices except not to take part in the study.

What Will It Cost You To Participate?

There are no costs associated with taking part in the study.

Will You Receive Any Rewards For Taking Part In This Study?

You will not receive any rewards or payment for taking part in the study.

Who Will See The Information That You Give?

Your participation in this study is confidential. Only the principal researcher will have access to questionnaire results associated with your identity. In the event of publication of this research, no personally identifying information will be disclosed. All data from this online questionnaire will be maintained on a secure web site accessible only by me. Any data you provide containing identifying information will be coded and reported out using these codes. Although I may publish the results of this study, I shall keep your name and other identifying information private.

Please be aware, while we make every effort to safeguard your data once received from the online data gathering company, given the nature of online questionnaires, as with anything involving the Internet, we can never guarantee the confidentiality of the data while still on the data gathering company's servers, or while en route to either them or us. It is also possible the raw data collected for research purposes may be used for marketing or reporting purposes on the company's Terms of Service and Privacy policies.

I may be required to show information which identifies you to people who need to be sure I have done the research correctly; these would be people from such organizations as the University of Kentucky.

Can Your Taking Part In The Study End Early?

If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

What If You Have Questions, Suggestions, Concerns, Or Complaints?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator Todd Baldwin at 859-200-6372. If you have any questions about your rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky at 859-257-9428 or toll free at 1-866-400-9428. We will give you a signed copy of this consent form to take with you.

_____ _____
Signature of person agreeing to take part in the study Date

_____
Printed name of person agreeing to take part in the study

_____ _____
Name of [authorized] person obtaining informed consent Date

Appendix F

Principal Interview Protocol

CONTEXT

On March 26, 2009, Governor Steve Beshear signed Senate Bill 1 into law. This piece of legislation led to the implementation of several education initiatives impacting college readiness and degree completion in Kentucky.

As a part of these initiatives, every district in the state signed the Commonwealth Commitment to move 50% of their district's high school graduates who are not college ready between 2010 and 2015.

Kentucky Senate Bill 1 mandates three specific reforms:

- the state adoption of revised K-12 content standards aligned with postsecondary expectations – the Kentucky Core Academic Standards;
- the development of a unified plan to reduce college remediation, including interventions and acceleration opportunities for students, and;
- the development of a new system of assessments, including end of Course, ACT Plan and ACT, and program reviews.

INTERVIEW

Goal Clarity and Agreement

1. What is/are the school's vision and/or goals?
2. Are these clear to the teachers?
3. Do teachers support these?
4. How has Kentucky Senate Bill 1 impacted the school's vision and/or goals?
5. Are the college-readiness strategies identified by the principal aligned with the vision and goals of the school? If so, in what ways? If not, why and in what way?

Role Clarity and Agreement

6. How has implementing Kentucky Senate Bill 1 impacted the following the responsibilities and expectations placed on:
    a. you as the principal?
    b. the teachers in your building?
7. How has implementing Kentucky Senate Bill 1 impacted the amount of time you spend in the following areas:
    a. Collaborating with teachers or other administrators (and for what purpose)
    b. Analyzing data (what data and for what purpose)
    c. Training (and for what purpose)

Structural Flexibilities and Adaptations

8. How has implementing Kentucky Senate Bill 1 impacted the following:
    - your school's schedule
    - your school's course requirements, content, and/or offerings
    - your school's committees, teams, an/or PLCs
    - your school's policies related to student behavior
    - your school's allocation and use of funds
9. How has implementing Kentucky Senate Bill 1 impacted teacher involvement in the following:
    - analyzing school needs
    - planning for changes in school-wide strategy or focus
    - providing feedback on changes implemented (or planned to be implemented)
    - changing policies

Wrap-up

I've really enjoyed listening to you and have learned a lot. I'd like to make sure I've captured your thoughts correctly. Here's what I heard: [RECAP BIG IDEAS].

- Does that sound like what you told me?
- Is there anything I've missed or anything you want to clarify or add?

<table>
<tr><td colspan="2">Elaboration probes:
- Would you say more/elaborate on __?
- What do you mean by __?
- Would you give an example/details?
- How did that happen? Then what happened?</td></tr>
<tr><td>Concretizing probes:
- What about for you personally?
- What happened in your case?
- What did that look/feel like for you?</td><td>Balancing probes:
- What might be the flip side to that?
- Does that work out better/less well in some other situations?</td></tr>
<tr><td colspan="2">Critical thinking probes:
- How would you prioritize/choose?
- All things considered, what would you say?
- How do they weigh up?
- How do they fit?</td></tr>
</table>

Appendix G

Focus-Group Participant Consent

Informed Consent

You are invited to take part in this research study because you currently serve as a teacher in a Kentucky public high school meeting specific college-readiness criteria for selection in this study. If you volunteer to take part in this study, you may be one of eighteen teachers to do so.

Researcher Conducting Study

The person in charge of this study is Todd Baldwin, a doctoral candidate conducting dissertation research at the University of Kentucky. He is being guided in this research by Dr. Tricia Browne-Ferrigno, an associate professor in the Department of Educational Leadership Studies at the University of Kentucky.

Goal of Project and Purpose of Study

State agencies need to better understand local context, barriers, and supports for implementation in order to develop policies, strategy, and state support service changes that might help to overcome reform obstacles. Therefore, the purpose of this study is to explore the interactions between implementation strategies, organizational structural characteristics, and performance outcomes. The study seeks to address two overarching research questions:

1. How is Kentucky Senate Bill 1 implemented at the high school level?
2. How do structural characteristics within high schools support implementation Kentucky Senate Bill 1?

The first research question refers to the specific change strategies and interventions schools adopted, or capitalized upon, to ensure students meet the college-ready metrics defined by the state accountability system. The second research question seeks to ascertain teacher and principal perceptions related to organizational goal clarity and agreement, clarity and agreement related to roles and responsibilities, and structural flexibility and adaptations.

Are There Reasons Why You Should Not Take Part In This Study?

You should not participate in this if you are not a teacher in a public Kentucky high school selected for this study.

Where Is The Study Going To Take Place And How Long Will It Last?

Your consent is sought to participate in focus groups conducted at a convenient location that will ensure privacy (e.g., an office or classroom at school, conference room at the district office or local library). You are asked to participate in one focus group discussion conducted by the principle investigator that will take approximately 60 minutes. The principle investigator may contact you via electronic mail or telephone to ask you to clarify something you said during your dicsussion; you have the right to refuse to participate in any follow-up questions, if you so choose.

What Will You Be Asked To Do?

You will be asked to participate in a focus group discussion on school structures supporting the implementation of the strategies for increasing college-readiness rates as they are implemented at your school.

If you agree to participate in a group interview, then your identity as a study volunteer will be disclosed to other study volunteers. As a participant in a group interview, you are expected to keep confidential all comments made by everyone during the interview. However, I cannot guarantee confidentiality due to the nature of focus groups, and the fact others present will know what was said and by whom.

The names of interview participants will not be disclosed in the research report or other means of dissemination of study findings.

What Are The Possible Risks And Discomforts?

To the best of our knowledge, the questions posed in the focus group discussion have no more risk of harm than you would experience in everyday life.

Will You Benefit From Taking Part In This Study?

There is no guarantee that you will get any benefit from taking part in this study. However, your willingness to take part may provide insight into the understanding of policy implementation in Kentucky.

Do You Have To Take Part In The Study?

If you decide to take part in the study, it should be because you volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

If You Don't Want To Take Part In The Study, Are There Other Choices?

If you do not want to be in the study, there are no other choices except not to take part in the study.

What Will It Cost You To Participate?

There are no costs associated with taking part in the study.

Will You Receive Any Rewards For Taking Part In This Study?

You will not receive any rewards or payment for taking part in the study.

Who Will See The Information That You Give?

Your participation in this study is confidential. Only the principal researcher will have access to transcripts and notes associated with your identity. In the event of publication of this research, no personally identifying information will be disclosed. All data from this online questionnaire will be maintained on a secure web site accessible only by me. Any data you provide containing identifying information will be coded and reported out using these codes. Although I may publish the results of this study, I shall keep your name and other identifying information private.

I may be required to show information which identifies you to people who need to be sure I have done the research correctly; these would be people from such organizations as the University of Kentucky.

Can Your Taking Part In The Study End Early?

If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

What If You Have Questions, Suggestions, Concerns, Or Complaints?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator Todd Baldwin at 859-200-6372.

If you have any questions about your rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky at 859-257-9428 or toll free at 1-866-400-9428. We will give you a signed copy of this consent form to take with you.

_____ _____

Signature of person agreeing to take part in the study Date

_____

Printed name of person agreeing to take part in the study

_____ _____

Name of [authorized] person obtaining informed consent Date

Appendix H

Focus-Group Protocol

CONTEXT

On March 26, 2009, Governor Steve Beshear signed Senate Bill 1 into law. This piece of legislation led to the implementation of several education initiatives impacting college readiness and degree completion in Kentucky.

As a part of these initiatives, every district in the state signed the Commonwealth Commitment to move 50% of their district's high school graduates who are not college ready between 2010 and 2015.

Kentucky Senate Bill 1 mandates three specific reforms:

- the state adoption of revised K-12 content standards aligned with postsecondary expectations – the Kentucky Core Academic Standards;
- the development of a unified plan to reduce college remediation, including interventions and acceleration opportunities for students, and;
- the development of a new system of assessments, including end of Course, ACT Plan and ACT, and program reviews.

FOCUS GROUP QUESTIONS

Goal Clarity and Agreement

1. What is/are the school's vision and/or goals?
2. Do teachers support these?
3. How has Kentucky Senate Bill 1 impacted the school's vision and/or goals?
4. Are the college-readiness strategies identified by the principal aligned with the vision and goals of the school? If so, in what ways? If not, why and in what way?

Role Clarity and Agreement

5. How has implementing Kentucky Senate Bill 1 impacted the responsibilities and expectations placed on teachers in your school?
6. How has implementing Kentucky Senate Bill 1 impacted the amount of time teachers spend in the following areas:
    a. Collaborating with peers (and for what purpose)
    b. Analyzing data (what data and for what purpose)
    c. Training (and for what purpose)

Structural Flexibilities and Adaptations

7. How has implementing Kentucky Senate Bill 1 impacted the following:
    a. your school's schedule
    b. your school's course requirements, content, and/or offerings

c. your school's committees, teams, an/or PLCs
d. your school's policies related to student behavior
e. your school's allocation and use of funds

8. How has implementing Kentucky Senate Bill 1 impacted teacher involvement in the following:
    a. analyzing school needs
    b. planning for changes in school-wide strategy or focus
    c. providing feedback on changes implemented (or planned to be implemented)
    d. changing policies

Wrap-up
I've really enjoyed listening to you and have learned a lot. I'd like to make sure I've captured your thoughts correctly. Here's what I heard: [RECAP BIG IDEAS].

- Does that sound like what you told me?

- Is there anything I've missed or anything you want to clarify or add?

Elaboration probes: - Would you say more/elaborate on __? - What do you mean by __? - Would you give an example/details? - How did that happen? Then what happened?	Turn-taking probes: - What do others think? - Anybody else wants to add? - Other thoughts about __? - Do others agree? Anyone disagree?
Concretizing probes: - What about for you personally? - What happened in your case? - What did that look/feel like for you?	Balancing probes: - Anyone has a different thought on that? - What might be the flip side to that? - Does that work out better/less well in some other situations?
Critical thinking probes: - How would you prioritize/choose? - All things considered, what would you say?	- How do they weigh up? - How do they fit?

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VITA

EDUCATION

University of Kentucky; Rank I Administration	May, 2010
Milligan College; M.Ed.	May, 2005
Milligan College; B.S., Communications	May, 2000

TEACHING APPOINTMENTS

Berea Community High School; KY	2006-2011
North Greene High School; TN	2005-2006
David Crockett High School; TN	2004-2005

OTHER POSITIONS & EMPLOYMENT

State Coordinator for Kentucky; NISL, Washington, DC	2015-PRESENT
Chief of Staff, NISL; Washington, DC	2014-2015
Executive Strategic Advisor; Kentucky Department of Education	2013-2014
Research and Policy Analyst; Kentucky Department of Education	2012-2013
Assistant Director; Kentucky Department of Education	2011-2012
Teacher; Berea Community Schools, KY	2009-2011
Senior Pastor; Hope Fellowship Church, TN	2003-2006
Youth Pastor; First Christian Church, TN	2001-2003

CERTIFICATION & LICENSURE

Facilitator; *National Institute for School Leadership*	2015
Rank I; School Administration	2010
Teacher Certification; Secondary and Middle Grades Social Studies	2006

COMMITTEES, MEMBERSHIPS, & ACTIVITIES

Kentucky Commissioner's Teacher Advisory Council	2009-2010
Kentucky Literacy Principal Leadership Module Design Team	2009-2010
Kentucky Association of School Administrators	2009-2011
Christian Educators Association International	2006-2011
Kentucky Civics Teacher Network Observation Team	2008-2010
National Council for the Social Studies	2008-2010
Kentucky Civics Teacher Network	2007-2008

HONORS & AWARDS

David L. Clark National Graduate Student Research Fellow	2012
Strategic Data Project Fellow	2012
Atlantik-Brücke Fellow	2009
Kentucky Association of School Administrators Scholarship Recipient	2009
Exceptional Educator—Tennessee State Senate Proclamation	2005
Milligan College Award for Excellence in Secondary Education	2005